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ABSTRACT

There is in the higher education profession a strong and growing segment who believe that although our colleges may be successful in producing well-informed and skilled specialists they do not turn out citizens broadly informed about the complex world in which they live. Consequently, as a people we are unable to cope with our personal and civic problems. These intellectual leaders hold the firm conviction that success in the effort to equip students mentally and morally to lead more effective lives will be contingent upon basic reforms in the structure and the substance of our system of higher education. Once the members of the society of learning focus their attention on the present disordered state of affairs in our culture and the unique resources institutions of higher education have for restoring "a vision of the world in which reverence and order will prevent the riot into which modern society appears to be moving," they will undertake the essential reforms in policy and practice. (Author/MSE)

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GENERAL EDUCATION AND THE PLIGHT OF MODERN MAN

by

EARL J. McGRATH

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THE LILLY ENDOWMENT, INC.
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FOREWORD

Once more, Earl J. McGrath provides us with his appreciable insight into the current state of American higher education. The present debate, set as it is, in the midst of the pressing problems of enrollment and finances and collectivization, is presented in the following pages in sharp detail. And we are promptly made aware that the urgency of today's discussions about general education, indeed of the nature of the liberal arts college itself, is the product of several decades of development. Dr. McGrath has captured the history and contemporary significance of the ongoing academic dilemma. In doing so, he has not been unwilling to express in convincing terms his own viewpoint, a viewpoint developed on the academic firing line over five decades.

We commend this vital work to your reading. Not everyone will agree; nor will everyone disagree. Yet it is inconceivable that anyone will regard what he has to say with indifference. The issues which he identifies with such clarity are not bland or casual or remote from the very heart of American academe. Dr. McGrath focuses on what he senses are re-emerging emphases for the American college. The Lilly Endowment has invested substantial resources as a demonstration of its faith in the importance of the historic mission of the liberal arts college. This publication is one more piece of evidence of that faith.

We cannot fully express our gratitude to Earl McGrath for undertaking this task and then for doing it so superlatively. But, we are not surprised.

James B. Holderman
Vice President for Education
Lilly Endowment, Inc.
Indianapolis, Indiana

PREFACE

> The ascent of man will go on. But do not assume that it will go on carried by Western civilization as we know it. We are being weighed in the balance at this moment. If we give up, the next step will be taken—but not by us. We have not been given any guarantee that Assyria and Egypt and Rome were not given. We are waiting to be somebody's past too, and not necessarily that of our future. —
>
> J. Bronowski.

In discussions with a host of faculty members and administrators over the past several years about the subject of this volume, the author has time and again been asked the question, "If the general education movement of the thirties, forties, and fifties failed, what reason do you have to believe it will succeed in the seventies?" Hopefully the complicated answer to this query will be found in the following pages, but at the very outset it has to be admitted that in attempting a revival of this movement one must be impelled as much by faith as by fact. One fact, however, is abundantly clear. The interest in and the concern about general education never really died out in the intervening years; it merely lay dormant under a cover of distracting events.

Today there is in the profession—significantly among some of the most distinguished persons in their respective fields—a strong and growing minority who believe that although our colleges may be successful in producing well-informed and skilled specialists they do not turn out citizens broadly informed about the complex world in which they live. Consequently, as a people we are unable to cope with our personal and civic problems. These intellectual leaders hold the firm conviction that success in the effort to equip students mentally and morally to lead more effective lives will be contingent on basic reforms in the structure and the substance of our system of higher education. The author unreservedly shares this view and has faith that once the

members of the society of learning focus their attention on the present disordered state of affairs in our culture and the unique resources institutions of higher education have for restoring, as Whitehead put it, a vision of the world in which reverence and order will prevent the riot into which modern society appears to be moving, they will undertake the essential reforms in policy and practice.

With the purpose of accelerating such a social regeneration, the author undertook the task of assembling these ideas on the subject of general education. A word needs to be said about the use of a term which regrettably, because of earlier misadventures under its name, today often arouses negative reactions in the teaching community. Over a period of years the author has sought unsuccessfully for a substitute phrase that would carry the essential connotations, while avoiding the earlier negative attributes. If *general education* is taken to embrace the meanings expressed by Harry Carman's definition of some years ago, as quoted later in this monograph, and readers will dissociate it from some of the unfavorable accretions of the past, the term is adequate today to cover both abstract connotations and concrete substance. In fact, no other expression seems to serve the purpose as well.

Some members of the teaching guild, especially those in the liberal arts colleges, prefer to use the ancient phrase *liberal* education. The latter locution, however, is even more confusing than *general* education. Unfortunately, much of the instruction now offered in liberal arts colleges bears little semblance to the subject matter and the purposes of the traditional education that bore the name, an education designed to prepare students for the common responsibilities of life by acquainting them with the great literary and philosophical works of our intellectual tradition. So-called liberal education today has neither common content nor meaning. The objectives and programs of liberal arts colleges vary infinitely as perforce do the characteristics of their graduates. The term general education has been used here to suggest implicitly that a restoration of the commonality of

learning is essential to enable citizens to understand one another as they discuss the matters about which all members of a democratic society must be concerned.

The principal purpose of this treatise is to call attention to a matter that in the author's judgment surpasses in importance all others in the academic community. The presses annually spew forth tons of commentaries, plans, research reports, and analyses of the existing state of affairs in colleges and universities. Many of these works, perhaps the large majority, deal with currently commanding matters. Too few, however, are concerned with the basic philosophical and social decisions which ought to determine the future character of these institutions and the impact of their services on the fate of our confused society.

Dozens of volumes treat such topics as open-admissions policies, tuition fees and easy access to higher education, government support, tenure rights for faculty members, new buildings and equipment, innovative types of curricula, and coeducational living facilities, all of which at the proper time deserve serious thought and planning. Considerations of such matters, however, should follow and be derived from basic decisions concerning the kinds of services the third century of our national existence will require of its institutions of higher education. These decisions can only be reached through a penetrating determination of our goals as a healthy and progressive democratic society. If we really believe in the superiority of the type of social and political institutions on which our nation was founded and has thus far prospered, we can assure their survival and adaptation to the emerging conditions of life in the years ahead only through the more effective general education of our people. The validity of this thesis is the foundation on which the propositions and proposals in this volume rest.

It will be maintained by some that the lower schools and indeed other social agencies must take large responsibility for the general education of all citizens. Obviously the most indispensable elements in basic education are the abilities to use the English language and the fundamental processes in mathematics,

capabilities which since they are largely cultivated in institutions which prepare youth for higher studies should be considered in any treatment of general education. There is, however, a limit to the scope of subject matter which a volume of this type can attempt to handle. Moreover, the condition of general education in the lower schools, whatever its limitations, is superior both in conception and practice to its state in the colleges and universities. Hence, the author makes no apology for not attempting a more comprehensive treatment of the subject at this time.

The reader will note that more expert opinions than usual are quoted *verbatim*. The author adopted this practice to bring to bear on the issues involved, in their own words, the serious reflections of some of the best-informed minds of our day. These citations, it is hoped, will also incontestably reveal the fact that the subject under discussion can no longer be considered academic. Rather it must involve the most serious consideration of the widest range of enlightened, informed, and disturbed citizens. Moreover, since this account of some aspects of American society and American higher education has a somewhat ominous ring, the author hoped to dispel the notion that the disturbing appraisals of our present condition represent the subjective utterances of a melancholy mind. Rather they represent a growing consensus among thoughful and concerned persons who consider this age to be in crisis. They believe it is not too late to do something about the matter if society will use the full power of higher education to deal with the situation.

For their contributions to this volume the author owes a debt of gratitude to innumerable persons not only in academic life, but in many diversified callings in this country and abroad he has sought advice, opinions, facts, and interpretations concerning the state of Western culture and the responsibility of institutions of higher education in improving the unpromising conditions that now prevail in the human enterprise. To others who helped assemble and collate the facts related to the subject he is also indebted, especially to Richard Neese of the Program in Liberal Studies at the University of Arizona and Heather Eubank of the

Lilly Endowment. Mary Jo Rubasch of the University of Arizona, Irene Stebbins of St. Michaels College, and Esther Glenk of Warner Pacific College each performed invaluable services in typing and retyping the manuscript for publication.

My deepest debt, however, is to the Lilly Endowment, of Indianapolis, for supporting the entire project from the beginning, and especially to Dr. James B. Holderman, vice president of that organization, whose constant stimulation, critical commentary, and numerous fruitful suggestions incalculably enhanced the quality of the volume. Needless to say, the ideas expressed do not necessarily represent the policies of the Lilly Endowment.

March 15, 1976 Earl J. McGrath

I. THE CONFUSED HUMAN CONDITION

> The civilization we live in at present is a gigantic technological structure, a sky-scraper . . . high enough to reach the moon. It looks like a single worldwide effort, but it's really a deadlock of rivalries; it looks very impressive, except that it has no genuine dignity. For all its wonderful machinery, we know it's really a crazy ramshackle building, and at any time may crash around our ears. — Northrop Frye

The human community is in a chaotic and confused condition. For several decades the internal decay of Western culture and its waning position in the world community have been observed by students of history and current affairs. Wells, Spengler, Toynbee, and Mumford — to mention but a few leading thinkers — have commented on the deterioration of the quality of life, especially in the democratic societies.

Today no one can be accused of hysterical impatience if he reaffirms H. G. Wells' sententious admonition to his contemporaries several decades ago that civilization is in a race between education and catastrophe. To validate this view one need only observe some of the ominous features of life that have emerged in the years since Wells uttered his warning. Wars have erupted in Europe, Asia, the Near East, several regions of Africa, and Southeast Asia. Internally, like the conflict in Ireland, breakdowns or subversions of democratic government have been ubiquitous. Nuclear weapons have been developed and, at least by the United States, put to devastating use. The third world represented in the United Nations increasingly rejects this country as a freedom-loving and compassionate people. Violence has displaced reasoned discussion at home and abroad as the means of resolving differences. Crime and disorder have multiplied geometrically. The slaughter of millions of opponents by those who contend that they are fighting for personal and national freedom has become the accepted order of the day. Conflict at home be-

tween, the conservators and the exploiters of our natural resources is intense. Labor and its employers demand continued rises in prices and wages when every knowledgeable person knows both lead eventually only to inflationary disaster. The uncontrollable increase in the use of alcohol and other drugs is common throughout our society even among pupils in elementary and secondary schools. These and dozens of other human problems which cry for solution could be cited to prove that Wells' race has been accelerated and education is not winning. Obviously the utopian visions of those who contended that the education of the people generally would nullify the burdens of mankind and make life more secure and satisfying have fallen far short of realization.

The pessimism of persons like Wells, Toynbee, and Mumford, men of philosophic mind and historical perspective about the human condition has recently spread to the members of society who are less well informed about the great movements of history and the momentous events of the day. An increasing number of ordinary citizens express attitudes of hopelessness and frustration. A convincing manifestation of their disillusionment is portrayed in their lack of confidence that either political party can govern the country with justice and quietude for all. The fiscal, political, and moral disarray in New York is only symptomatic of more disturbing and widespread events already on the threshold of our evolving society.

The comments of many Britishers on their elections suggest that they, too, feel that regardless of which party holds office the processes of government are no longer respected or expected by the people to be able to deal with such vexing tasks as stemming inflation and controlling taxes. Similar disillusive breakdowns in the orderly processes of living can be observed in Italy, France, Spain, Portugal, and other Western nations. Equally disturbing to those who believe in the free and democratic processes of living are the conflicts in some of the more recently established commonwealths where freedom from the evils of colonialism has been replaced not by respect for human dignity but by vicious forms of tyranny and a total abandonment of the

principle of the resolution of differences through the exercise of reason.

In a recent article published in *The National Observer*, staff writer Wesley Pruden, Jr., recounted his interviews in a host of countries with individuals representing a cross section of the population concerning their outlook on life and the future of humanity. The headings of his report — Deepening Problems Cause World-Wide Pessimism, Dim Hopes of Better Tomorrow and World-Wide Pessimism Feeds on Unsolvable Problems — reflect the despair and frustration that pervades the world. Although the relatively good conditions of life in the United States contrast sharply with the extreme feeling of hopelessness elsewhere, abundant evidence reveals that we also as individuals and as a nation are at sixes and sevens. Pruden highlights the Lack of commonly accepted goals and the abandonment of restrained discourse when he quotes Ralf Dahrendorf, director of the London School of Economics, as saying:

> We have reached a point in our societies in which there is no agreement on some of the essential rules within which one disagrees, and it is this disagreement about the rules which has led us halfway back to Hobbes, the first chapter of *Leviathan*, and "all against all."[1]

Andrew Hatker, a professor of history at Cornell University, takes an even dimmer view of our national prospects. In *The End of the American Era*, he sums up his cheerless outlook on our destiny as a people in the following words:

> The United States is now about to join other nations of the world which were once prepossessing and are now little more than plots of bounded terrain. Like them, the United States will continue to be inhabited by human life; however, Americans will no longer possess that spirit which transforms a people into a citizenry and turns territory into a nation. There eventually arrives a time when a preoccupation with private concerns deflects a population from public obligations. The share of energy devoted to common concerns gradually diminishes, and a willingness to be governed is less evident.
>
> America's terminal hour has arrived at a time when most Americans still see their nation as vigorous in potential and youthful in spirit. Few are prepared to consider the possibility that their country will never again experience the stature it has so recently known. The assumption of unend-

ing ascendancy, with its premise that man has the capacity to order his destiny, makes it all but impossible to suggest that the American interlude of nationhood will end. The very thought that America's history is no more than a finite interval has been repressed by a people persuaded of their exemption from the pitfalls which have fated other societies.[2]

These expressions of doubt about the future of Western culture, or in some cases the entire human enterprise, may be expected. But those who still have hope that life on this globe can be made liveable and who seek to determine how this fateful goal might be achieved would do well to examine the relationship between the conditions of life today and our traditional faith in education as a panacea for social ills. The plain fact is: *education has neither in this country nor in others where it has been consistently extended over the past several centuries produced the beneficent results in the personal life of the citizen or in the national sphere that its advocates so ardently promised.*

Some of the most chaotic and humanly oppressive conditions have been perpetrated by, or permitted to occur in, the nations in which advanced education has been most accessible. Wars, economic hardships, internal conflict, crime, and other social pathology have been increasingly characteristic of life in the West at the same time that education has been extended to ever-larger percentages of the population. The recent remarks that James Billington, director of the Woodrow Wilson International Center for Scholars, addressed specifically to higher education obviously apply to the total educational undertaking:

> Perhaps the most ominous — and least understood — feature of revolutionary violence in the modern world is that it is the creation of educated people, not of primitive barbarians. It often arises within those institutions controlled by intellectuals: the universities.
>
> The postindustrial West may be as vulnerable to this violence as was the preindustrial West. The intellectual population has never increased so rapidly as in the postwar era, and the internal crisis of modern intellectual life — its lack of shared values — creates a thirst for the combination of commitment and "relevance" that is hard to find in the modern multiversity.
>
> If there is no commitment to shared values in Western society — and if none are imparted to our amoral institutions of higher learning — no

increase in police and burglar alarms will suffice to preserve our society from the specter that haunts us — not a bomb from above but a gun from within.[3]

It is clear that if education is to be a major instrument of social reconstruction and a means of improving the human lot, it will have to be of a different character and have different purposes from those that have dominated the enterprise of learning for the past century, especially since World War I. A brief review of the history of the belief in the meliorative quality of education will illuminate its high ideals as well as its lamentable shortcomings.

Northrop Frye, "The Vocation of Eloquence," *The Educated Imagination*, 1963.

1. Wesley Pruden, Jr., "What's the Use of Trying?" *National Observer*, Oct. 11, 1975, 6, (col. 5).

2. Andrew Hacker, *The End of the American Era* (New York: Atheneum, 1970), 6.

3. James Billington, "The Gun Within," *Newsweek*, Oct. 6, 1975, 13.

II. EDUCATION AS PANACEA

> The Common School is the institution which can receive and train up children in the elements of all good knowledge, and of virtue, before they are subjected to the alienating competitions of life. This institution is the greatest discovery ever made by man; we repeat it, *The Common School is the greatest discovery ever made by man.* In two grand characteristic attributes, it is supereminent over all others: first, in its universality; for it is capacious enough to receive and cherish in its parental bosom every child that comes into the world; second, in the timeliness of the aid it proffers; its early, seasonable supplies of counsel and guidance, making security antedate danger. Other social organizations are curative and remedial; this is a preventive and an antidote; they come to heal diseases and wounds; this to make the physical and moral frame invulnerable to them. Let the Common School be expanded to its capabilities, let it be worked with the efficiency of which it is susceptible, and nine-tenths of the crimes in the penal code would become obsolete; the long catalogue of human ills would be abridged; men would walk more safely by day; every pillow would be more inviolable by night; property, life and character held by a stronger tenure; all rational hopes respecting the future brightened. — Horace Mann

The present condition of society throws doubt on the predictions and high hopes of leading thinkers in the eighteenth century when the United States was aborning. That age was a time of intense social turmoil and wide-ranging discussions of political philosophy. One group of philosophers believed that ignorance was responsible for most human problems and proclaimed education as the cure for all varieties of social ills. A commanding band of French intellectuals committed to a philosophy of rationalism firmly held the view that human beings, through the quickening of their intellectual sensibilities and the cultivation of their capacity for logical and objective

thought, could realize personal happiness and achieve perpetual utopia. The paucity of information, the inability to think critically, and the lack of skill in putting knowledge to practical use in the solution of the myriad problems with which mankind inescapably has to deal were considered the primary causes of individual unhappiness and of social pathology.

Although some of the advanced thinkers of the eighteenth century, *Les Philosophes* for example, assumed that only a small percentage of human beings were capable of the kind of higher education required to establish a sane and just society, others steadfastly believed that the well-being of mankind and indeed the salvation of the entire human undertaking depended on the extension of schooling to all the people. Only as the advantages of education were broadly spread throughout the whole body politic, they contended, could a society achieve responsible democratic government and civil tranquility. Writing in 1792, one of the most illustrious of these men of learning, Condorcet, in the following words epitomized their conviction that the education of all citizens was a social imperative:

> Never will a people enjoy a stable and assured liberty if instruction in the political sciences is not general, if it is not independent of all social institutions, if the enthusiasm aroused in the souls of the citizens is not guided by reason, if they are capable of being inspired by anything but truth . . . if you do not prepare for them, by a *general education* the means of achieving a more perfect constitution, of making better laws, and of acquiring a more complete liberty.[1]

Condorcet revealed his conviction, now popular but then unusual, that education must not only be universal, but continuous throughout life.

> Finally, it has seemed to us that education should not cease when the individual leaves school. It should be of concern to all ages; for there is no age at which it is not possible and profitable to learn, and this later instruction is even more necessary because the education received in childhood was confined to the narrowest limits. In fact, one of the principal causes of the ignorance in which the poorer classes of society are today plunged is that it is easier for them to obtain a primary education than to preserve the advantages derived from it.[2]

Among the founders of this Republic such men as Thomas Jefferson and Benjamin Franklin knew about and were deeply influenced by these proposals for social reform. They, too, firmly believed that the extension of education to all youth was essential to national well-being. Jefferson, continuing to urge his countrymen to provide for the education of coming generations, wrote to Judge John Tyler in 1810:

> I have indeed two great measures at heart, without which no republic can maintain itself in strength. 1. That of general education, to enable every man to judge for himself what will secure or endanger his freedom. 2. To divide every county into hundreds, of such size that all children of each will be within reach of a central school in it.[7]

Twelve years later in correspondence with C. C. Blatchly, he reiterated these convictions and extended them to cover the whole of mankind:

> I look to the diffusion of light and education as the resource most to be relied upon for ameliorating the condition, promoting the virtue, and advancing the happiness of man.[8]

Both men also evidenced their confidence in the value of higher education in the advancement of the human condition first by visualizing and then by helping to bring into being innovative institutions of higher education, the University of Virginia and the University of Pennsylvania.

Even in this country where more democratic practices prevailed than in the European nations from which the first settlers emigrated, these liberal views were not soon to gain general acceptance. Many continued to doubt the desirability or feasibility of even a common schooling. The practical realization of that ideal as the foundation of a satisfying personal and an enlightened social life required exceptional civic vision and dogged persistence for more than a century on the part of a dedicated group of public leaders.

The long struggle for a system of universal public education led by such historic figures as Horace Mann and Henry Barnard needs no review. Our educational history amply reveals that it took many years to bring local and state school systems into

being. By the latter half of the nineteenth century, however, publicly supported education had become available at the elementary level in most sufficiently large population centers. Although still opposed by some groups the value of a common elementary education for all had become recognized as an *individual right* and a *social necessity*. Moreover, in 1874, when the Michigan Supreme Court in the Kalamazoo case (Stuart *v.* School District) sustained the right of the appropriate political entities to tax for the support of secondary education, the same growing acceptance of the worth of more advanced formal schooling became manifest.

Even before the 1874 decision, however, prominent lay citizens and educators under the leadership of Senator Justin Morrill of Vermont were calling for public support of higher education by the states and federal government. Their efforts led to the further democratization of learning in 1862 when President Lincoln signed the Morrill Act extending educational opportunity upward and introducing more practically useful subject matter. The depth of our commitment as a people to the idea that education would solve our problems and enhance our national prosperity was substantiated by the consummation of this legislation at a time when the energy, wealth, and spirit of our people were absorbed in the prosecution of a devastating internecine conflict. This act added evidence of our growing national commitment to the concept that education could provide the key to the abundant life and the good society with liberty, justice, and well-being for all.

The primary purpose of this all-too-brief review of one aspect of our history is to show the relationship between our social philosophy and our educational practice. It reveals clearly how the American people, sometimes unwittingly to be sure and at times against vigorous opposition, came to accept the basic tenet that education was the means by which the lives of the individual citizen and the civic community could be enriched and stabilized.

It is relevant to point out that the other nations from which our earliest educational policies and practices were transplanted, though they accepted the philosophy of extending education to

an ever-growing percentage of youth much more slowly have in recent years been moving toward our own goal. In such Western countries as England, Germany, and France, an elitist process of selectivity has until very recently prevailed and an examination of the percentage of the appropriate age groups receiving advanced education suggests that this selective practice continues to be dominant. Yet, even in these lands, the trend is for ever-larger numbers of youth to receive instruction at the university level. The large percentage of the population of pre-revolutionary Russia and China that was either scantily educated or totally illiterate stands in marked contrast to recent progress in making formal schooling more generally accessible. The swift growth in Russian science and technology and similar more modest developments in China reveal a comparable belief that no people can today attain the creature comforts and the general well-being, to say nothing of the military strength, of the West except on the basis of a broader and more intensive education.

Education Not a Cure for Social Ills

Nevertheless, it is the main contention of this treatise that the inspiring vision of educators and other public figures and the naive confidence of the people generally that education could be relied upon to cure humanity's ills have not been realized. In fact, there is mounting evidence to support Hacker's contention that Western culture, like so many of its predecessors, is now in precipitant decline. Many intellectual leaders inside and outside the academic profession, patently no Cassandras by nature or training, believe firmly that mankind is at a critical cultural watershed and perhaps we are already on the downward slope. Others of a more optimistic view believe that the confusion in the public mind and the disillusionment of many with the purposes, programs, and products of higher education though valid can be remedied by an immediate and unreserved re-examination of the philosophy on which our system has been based and an inquiry into the reasons why the high promises of universal education have not been realized. The author is firmly committed

to this view and believes it is time to raise critical questions about the character and quality of education.

After several centuries of commitment to the theory that the continuous extension of education to an ever-growing percentage of the citizenry is the *sine qua non* of personal and social well-being, is it not time to raise some searching questions about the practical results of the presuppositions on which this political doctrine rests? Should we not be making objective inquiries about the outcomes of the kinds of education we have had, not as measured by subject-matter tests, but by the quality of our national life, by the satisfactions the individual achieves, and the effectiveness and stability of the government under which he lives? Have, in fact, those in government, industry, and the professions who have been the beneficiaries of a higher education been so instructed as to place the public good above their own private, corporate, or professional interests? Do those who have had the advantages of advanced education achieve a more complete self-fulfillment than their contemporaries who have received less formal schooling? Do the commonwealths like the United States, England, Germany, France, and the other Western states exhibit the stable conditions of life and the processes of enlightened government essential for the constant improvement of the human lot? In practical terms, does the average person with all his knowledge and ostensible sophistication enjoy greater happiness and self-fulfillment today than did his forebears or than his contemporaries in other lands where the opportunity for education has been more restricted?

Since these questions deal with intangible matters of personal feelings and the conditions of private lives, reliable answers are hard to find. Surface evidence seems to indicate that as a people we enjoy a fuller satisfaction of the rising expectations of humanity then ever before. Statistical studies in the fields of economics, sociology, and psychology related to health, average income, fuller opportunity for entertainment, and the like, seem to provide ineluctable evidence of rich dividends on our investment in an ever-expanding educational system.

Comparisons of economic, political, and social indices between developed and developing countries would seem to support the thesis that the more education the better the condition of life for all. As two University of Oregon professors of political science recently stated, in today's interdependent world there are interrelated quantitative realities that impinge upon each and every terrestrial inhabitant — militarism, world-wide destruction of our natural environment, the population explosion, hunger, and the expansion of technology and science. There are interrelated qualitative realities as well, including nationalism, chauvinism, ethnocentrism, and racism. With this perspective in mind, a comparison of the quantitative index of economic disparities among and within nations is particularly disheartening because the gap is widening and the bitterness increasing between the "haves" and the "have-nots."[6]

Is Progress Real?

In our own country, for example, one could note that our commitment to education has been successful in raising the median years of formal schooling completed among our people twenty-five years of age and older from 8.6 years in 1940 to 12.3 in 1974.[7] During this same time span, the rapid expansion of research and increased educational opportunity has contributed to a steady growth in the average annual earnings of American citizens, even when measured in constant dollars, and this average income has manifoldly exceeded the average income of citizens in developing countries with less formal schooling.[8] While family income has been rising, the hours in the worker's week, averaged for all categories of the employed, have been falling from 61.8 in 1875, to 48.5 in 1943, and to 39.5 in 1973.[9] Concurrently with these reductions in the hours devoted to work, technological inventions have succeeded in lifting the physically exhausting burdens of labor from the backs of workers and homemakers.

Advances in medical science and other meliorative factors have dramatically extended life expectancy for the resident population

of the United States. Comparisons of those born in 1929 with those born in 1974 reveal an increase to an all-time high: for men from approximately 59 to 68.1 years and for women from approximately 60 to 75.8 years.* Moreover, in spite of inexcusable deficiencies among some sectors of our people — hunger, malnutrition, lack of shelter from heat and cold, inadequate medical care, dreariness of life, and other traumatic features of living— these features of a hard, unrewarding life have been dramatically reduced. Pleasures unheard of only a generation or two ago have now enriched the lives of average citizens through the phenomenal developments in the communications media and the spectacular improvements in the speed and mode of transportation.

Whatever conclusions these masses of data may be presumed to prove about the edifying relationship between education and the quality of life, they regrettably reveal little — indeed they tend to conceal — information about some of the most rewarding features of the good life, a feeling of satisfaction with one's lot and a concern for the well-being of one's fellow creatures. The foregoing and other evidences of a constantly enriched life for all, it will be observed, are limited to a narrow range and relatively mean level of human satisfactions. They need to be scrutinized in relation to other factors in the condition and quality of our personal and national lives, for in spite of incontrovertible evidence showing an improvement in the material lot of mankind, especially Americans, a large percentage of people obviously live unsatisfactory lives. Regardless of their advanced education, many do not seem to know what to do to humanize and meliorate their aimless existence. For many, including the beneficiaries of an education in the liberal arts and sciences, Thoreau's 1854 statement in *Walden* that "the mass of men lead lives of quiet desperation" is more valid now than it was when originally written in a day marked by comparatively low average formal schooling. Further, the bare statistical data fail to disclose whether the kinds of knowledge and intellectual skills the educational system now provides do in fact equip its patrons with the qualities of mind and character the eighteenth century social reformers

considered the hallmark of a satisfying private and effective public life.

Growing Doubts among Intellectuals

Some contemporary thinkers of real intellectual stature are concluding that the extension of education, at least the kind we have provided, deified by the thinkers of the eighteenth century, has not in fact enriched our common lot. One of the most celebrated philosophically oriented scientists of our day raises serious doubts about the authenticity of the Enlightenment's faith in education, at least the kind of instruction that has developed over the intervening years. René Dubos, in his epoch-making volume, *Reason Awake*, has this to say on the subject:

> Reason has been immensely productive of scientific knowledge and technological achievements since the Renaissance. But it must have suffered from intoxication and nightmares during the past few decades if one judges from the technological monsters it has engendered.
>
> Scientific knowledge could certainly liberate mankind from grinding poverty and enlarge our view of the universe and of life. In fact, until recent years, all scientists and most laymen had taken for granted the assumption that science was inherently good and that the technologies derived from it constituted the major agents of desirable change and social progress. This view was challenged by only a few humanists and romantics unrealistically advocating a return to the good days of the past. The public mood is now changing, as evidence accumulates that technology is forging new shackles for man from which he seems unable to escape. Nuclear weapons threaten to destroy all living things; industry and transport are polluting the world with waste products, visual insults, and deafening noises; mass media are conditioning and cheapening mental and emotional responses; and microelectronics are invading all aspects of life and making privacy almost impossible. The prodigious achievements of modern technology seem to be paving the way for a new kind of totalitarianism.
>
> The uneasiness of the public about the present state of affairs and the consequent apprehension about the future are reflected in the topics selected by science fiction writers and in the popularity of anti-utopian literature.[10]

When one considers the quality of life in the nation's third century Dubos' continuing remarks are not reassuring.

> In view of the resources that will become available if only a small percentage of the predictions now made by scientists become a reality, one might assume that life during the twenty-first century will be safe, com-

fortable, and exhilarating, at least in the prosperous countries of the industrialized world.

Yet, despite all the modern scientific miracles and the promises of many more to come, the "new pessimism" is prevalent in the most successful technological societies. One possible reason for this paradox is that the technological utopias now being forecast do not correspond to what people really want. . . . The breakthroughs that they predict are trivial because they do not even suggest approaches to the problems that must be solved if mankind is to survive.[11]

But the essence of the issues involved in the revival and invigoration of an adequate general education is captured in the affirmation of Dubos that:

We can certainly develop powerful techniques to control and transform our environment, but our man-made and natural landscapes are inferior to what they were two hundred years ago and are rapidly degenerating still further. Technological proficiency provides us with things and services in nauseating profusion, but the harrassed faces and the harsh voices of men, women, and children, especially in affluent social groups, reveal that this kind of prosperity does not generate either happiness or peace of mind. Our sumptuous universities and research institutes accelerate the growth and dissemination of knowledge but do not know how to apply professional expertise to fundamental human needs and aspirations.[12]

Viewing the American scene today, one could, as Jean Jacques Rousseau did, make a reasonably strong case disputing the firm confidence that most of his contemporaries lodged in reason and the education they conceived to cultivate it. In a prize-winning essay composed in 1750 for the Academy of Dijon, he defended the negative side of the question: *Has the progress of the sciences and arts tended to the purification or the corruption of morals?* His resounding response was that the arts and sciences as represented in the education of the day tended to lower rather than raise the quality of life. One need not be accused of denigrating or depreciating the motives or the social contributions of scholars if he points out that many of the presumptive benefits to the human enterprise resulting from the advance and spread of knowledge since that era have been attended by offsetting losses.

In addition to the disfunctions of reason that Dubos cites, one must view with concern the incongruity of education flourish-

ing coextensively in urban communities with such problems as the proliferation of crime. With the spread of formal schooling to ever-larger percentages of young people, some types of criminal activity, such as those that mulct public funds intended to aid the aged, the sick, and the hungry, for instance, are perpetrated not by the ignorant and needy, but by the relatively well-to-do products of our colleges and professional schools. The greedy exploitation of the nation's irreplaceable natural resources for the immediate personal gain of the already affluent with callous unconcern for the impoverishment of succeeding generations, is by and large, not the work of the untutored mind, but the achievement of those whose amoral tutelage has guiltlessly enabled them to circumvent the common good.

Even those who admit that these social evils exist argue that education for total living is not the sole responsibility of the educational system. They reason, to a degree properly, that other social agencies — the church, the family, the communications media, and political organizations, to name but a few — have large responsibility to provide knowledge and cultivate attitudes and qualities of character as well as the more formal educational agencies. Although partly valid, the basic flaw in this reasoning is that the human beings who direct and operate, and indeed determine the purposes of, these social institutions are also the products of our educational system, and therefore suffer from its limitations.

The author has recently treated values and social priorities in a companion publication entitled, *Values, Liberal Education, and National Destiny*.[1] Hence, the values of the individual American and of the society of which he is a part will be reconsidered in this work only as they have reference to interdisciplinary studies. The point that deserves emphasis is that the disorders in our society and the maladjustments among our people are in significant measure the result of ignorance about the comprehensive and interdependent character of the social, physical, and spiritual elements in the cosmos in which we exist. Most of the graduates of colleges and universities today have gained the knowledge and

skills of a novitiate scholar in a limited field. Many know little else except as personal inquisitiveness has moved them to extend their own learning. This condition is a grave indictment of our educational institutions. It seriously undermines the legitimacy of the concepts of "knowledge is power" and "knowledge for its own sake." The demand of the day is for knowledge that will enhance the condition of, perhaps even save, the human race, and the use of power inherent in knowledge to order society toward commendable goals.

If it be granted that our society is in a state of unprecedented confusion, that we seem to be increasingly impotent in coping with the problems of a democratic polity in which the citizenry as a whole determines the laws and selects those who govern, and if we continue to belive that education *could* be the primary social instrument by which we establish more commendable conditions and a higher quality of American life, then it follows that the education we have had has been faulty. Appropriate reforms must be made, and the time available is running out.

Basic Educational Reforms Essential

In this critical period of human history, the first responsibility of all citizens, especially those in the house of learning, must be to re-examine the purposes, the content, and the practices of education and to devise more searching measures to assess its results. There are those, like Toynbee and Mumford, who, having studied history and examined the human condition, believe that Western culture may have passed the point of no return; that it, like its predecessors, will sink into obscurity. Others believe that mere survival is now the best we can hope for while keeping afloat on a culture set adrift, avoiding the shoals as best we can, letting nature take its course and getting as much as possible out of life day by day. This latter outlook debases the human spirit. It is unworthy of a living being who has intelligence, moral sensitivity, and regard for his children and his children's children. Such a dismal view assumes that even an education properly designed and calculated to use knowledge to correct existing de-

ficiencies could not, given time, save our culture from descent into oblivion. Our destiny as a people will be determined by our ability to rise above this defeatism. Educators, by their very choice of occupation, have committed themselves to the most crucial role in this effort of social regeneration. If they default on this critical responsibility, lay citizens will of necessity step into the breach.

It should be evident that any recasting of the purposes of higher education and any basic restructuring of general education which fails to come to grips with the relationship between the ends of personal living and the broad goals of the human enterprise on the one hand and learning experiences on the other will be less than worthwhile. More accurately, if the present bodies of factual information and the course organization are merely reshuffled, as too often happened in the earlier efforts to make the undergraduate experience more meaningful, the profession will be guilty of immoral negligence, for these alleged reforms, superficial at best, will lead uninitiated students to believe that they are being prepared to deal competently with the urgent problems of our times when in reality they may only have acquired a body of isolated facts and a modest conception of the structure of abstract knowledge.

Horace Mann, *The Common School Journal*, III, 1841.

1. F. De La Fontainerie, ed., *French Liberalism and Education in the Eighteenth Century: The Writings of La Chalotais, Turgot, Diderot, and Condorcet on National Education* (New York: McGraw-Hill Book Co., 1932), 343. (Italics added.)

2. Ibid., 326.

3. Paul Leicester Ford, ed., *The Writings of Thomas Jefferson*, IX (New York: G. P. Putnam's Sons, 1898), 277.

4. H. A. Washington, ed., *The Writings of Thomas Jefferson*, VII (New York: J. C. Riker, 1855), 263.

5. David J. Finlay and Thomas Hovet, Jr., *7304: International Relations on the Planet Earth* (New York: Harper & Row, 1975), 3-5.

6. U. S. Department of Health, Education, and Welfare, Education Division, National Center for Education Statistics, *The Condition of Education: A Statistical Report on the Condition of American Education 1975* (Washington: Government Printing Office, 1975), 122.

7. For the 1939-57 median money wages note: U. S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1957* (Washington: Government Printing Office, 1960), 167. For 1958-73 note: Executive Office of the President: Office of Management and Budget, *Social Indicators, 1973: Selected Statistics on Social Conditions and Trends in the United States* (Washington: Government Printing Office, 1973), 125.

8. Computation of the 61.8 hour workweek for 1875 for all industries (except building trades) is based on an average workday of 10.3 hours multiplied by six days, *Historical Statistics of the United States*, 90. Average weekly hours worked for all U. S. workers in 1948 and 1973 are from *Social Indicators*, 128.

9. "Expectation of Life in the United States at New High," *Statistical Bulletin* (New York: Statistical Bureau, Metropolitan Life Insurance Co., April 1975), 5.

10. René Dubos, *Reason Awake: Science for Man* (New York: Columbia University Press, 1970), 53-54.

11. Ibid., 61-62.

12. Ibid., 62.

13. Earl J. McGrath, *Values, Liberal Education, and National Destiny* (Indianapolis: Lilly Endowment, Inc., 1975).

III. GENERAL EDUCATION PAST AND PRESENT

> If it is not nonsense to seek for unity in knowledge, then it is nonsense not to seek it. And in fact this seeking is the great intellectual undertaking of this time and of a renewing civilization." — Alexander Meiklejohn

The positive relationship between a proper general education and human well-being is not a new concept in the society of learning. It recurs in the thought of social philosophers from Plato to Hutchins. Couched in the classical conception of *liberal* education, *general* education's claim to be a prerequisite of an effective public and a satisfying private life goes back to the days of the medieval university. The earliest modern specific treatment of general education *in extenso* appeared in the inaugural address on February 1, 1867, of the renowned British philosopher, John Stuart Mill, then the newly elected rector of the University of St. Andrews. Much of the argument in that essay is as relevant and as fresh today as it was then. In this exposition of the need for a capacious education for the living of an effective and enlightened life, Mill expressed views that merit widespread re-examination by educators in our time. Contending for a general education comprised of *both* the classical or literary tradition and the modern sciences, Mill argued:

> For if the inexorable conditions of human life make it useless for one man to attempt to know more than one thing, what is to become of the human intellect as facts accumulate? In every generation, and now more rapidly than ever, the things which it is necessary that somebody should know are more and more multiplied. Every department of knowledge becomes so loaded with details, that one who endeavours to know it with minute accuracy, must confine himself to a smaller and smaller portion of the whole extent: every science and art must be cut up into subdivisions, until each man's portion, the district which he thoroughly knows, bears about the same ratio to the whole range of useful knowledge that the art of putting on a pin's head does to the field of human industry. Now, if in order to know that little completely, it is necessary to remain wholly

ignorant of all the rest, what will soon be the worth of man, for any human purpose except his own infinitesimal fraction of human wants and requirements? His state will be even worse than that of simple ignorance. Experience proves that there is no one study or pursuit, which practised to the exclusion of all others, does not narrow and pervert the mind; breeding in it a class of prejudices special to that pursuit, besides a general prejudice, common to all narrow specialities, against large views, from an incapacity to take in and appreciate the grounds of them. We should have to expect that human nature would be more and more dwarfed, and unfitted for great things, by its very proficiency in small ones. . . . Government and civil society, are the most complicated of all subjects accessible to the human mind: and he who would deal competently with them as a thinker, and not as a blind follower of a party, requires not only a general knowledge of the leading facts of life, both moral and material, but an understanding exercised and disciplined in the principles and rules of sound thinking, up to a point which neither the experience of life, nor any one science or branch of knowledge, affords. *Let us understand, then, that it should be our aim in learning, not merely to know the one thing which is to be our principal occupation, as well as it can be known, but to do this and also to know something of all the great subjects of human interest;* taking care to know that something accurately, marking well the dividing line between what we know accurately and what we do not: and remembering that our object should be to obtain a true view of nature and life in their broad outline, and that it is idle to throw away time upon the details of anything which is to form no part of the occupation of our practical energies.[1]

All through the acrimonious debates which occurred at the time of the breakup of the required classical curriculum during the middle and late nineteenth century in our own colleges and universities, the question of the broad education of all college students was a central point of contention. Especially after 1869, when Charles W. Eliot, the newly elected president of Harvard University, began vigorously to advocate the adoption of the elective system, the controversy over general versus specialized learning was intense and prolonged. It is important to observe, however, that even Eliot in his argument that students should be allowed to construct their own individual curriculum in accordance with their personal intellectual abilities and interests did not abandon the concept of a common set of educational objectives. He merely contended that the intellectual traits which should

characterize the thinking and behavior of all those who had had a liberal education could with proper teaching be cultivated through the study of any subject either in the ancient classical curriculum or in the newer disciplines in the natural and social sciences.

The academic soil of the nineteenth century nourished an unprecedented growth of knowledge: "The Yale catalogue for 1829 managed to include the entire four-year course of study in one page; in 1955 it took two hundred pages to list the undergraduate courses of study."[2] Concurrently, radical change in the role of the teacher occurred in which the traditional British view that the teacher's task was to prepare young people to live enlightened and civilized lives was supplanted by the German idea of the graduate school. This conception rewarded teachers for their research activities rather than their participation in the moral and spiritual, as well as the intellectual development of their students.

The debates concerning the proper content of a liberal education continued in the early twentieth century. As faculties became disenchanted with the license of unrestrained election and the intensive specialization it made possible, a system of distribution requirements almost universally replaced the elective system. This modified elective system was adopted without adequate provision to assure that students would choose broad courses from the major divisions of the curriculum. Advocates of this curricular device sought to regain some of the objectives of a liberal education by having students pursue a specific number of hours of study in each of the major divisions of knowledge — the humanities, the social sciences, and the natural sciences. Throughout the first decades of the twentieth century new and more specialized units of instruction were added to the college curriculum and prospective faculty members pursued an ever-shrinking subject matter leading to the Ph.D. degree. As they became teachers of undergraduates they tended to narrow their course content to fit their own intellectual interests rather than the broader needs of students. The distribution system under these circumstances failed to instill the breadth of learning its advocates intended. Each student's program of studies

came to have little resemblance to that of his classmates, and particularly to the required curriculum in the colleges of 1850, to say nothing of the original seven liberal arts of the early days at the University of Paris.

The fruits of these efforts as they ripened in the early decades of the twentieth century dismayed many educators, social theorists, and laymen. They saw the emerging graduate schools tolerating the undergraduate colleges as a source of recruits for their disciplines and as a subvention for their faculties and research projects. These views were important for liberal learning because the graduate schools bred teachers for the liberal arts colleges who considered research rather than teaching to be the emblem of professional status. College students who did not choose an academic calling with its emphasis on research graduated tragically unprepared to deal with the problems and decisions that would dominate the greater portion of their lives, interpersonal relationships, citizenship in a democracy, and the creative use of leisure time.

The patent deficiencies that appeared to have infected every branch of American higher learning kindled the initial reactions that were to be organized around the concept of general education. First, there were experimental courses: for example, at Amherst, under the leadership of President Alexander Meiklejohn, a course to integrate the social studies; at Columbia, the World War I Student Army Training Corps course and John Erskine's Great Books colloquium. Soon followed the founding of experimental colleges, such as Sarah Lawrence, Bennington, the Experimental College at Wisconsin, and the Great Books program at St. John's at Annapolis. New units were organized within existing universities: the University College of the University of Florida, the General College of the University of Minnesota, the Basic College of Michigan State University, and the General College of Boston University.[3]

In the 1940s, general education gained still wider acceptance as a viable reforming agent in higher education, perhaps bringing half of the colleges in the nation into its sphere of influence by 1955. Although the programs it inspired reflected the indigenous

conditions and diverse concerns of the many institutions of American higher education, there were themes common to the main: (1) definition of the broad outlines of human knowledge, an objective that was commonly implemented by developing interdisciplinary courses and a core curriculum in which all students participated regardless of their field of specialization; (2) a recognition of the importance of the teacher and some scattered attempts to provide doctoral programs that would train for the professional activities involved in interdisciplinary courses; (3) the development of the ability to think critically which could be transferred to all fields and problems of human endeavor; and (4) a conscious effort to influence the student's values and behavior.

Writing with the hindsight and perspective of the late 1940s, but embracing the issues that spurred the experiments of the 1920s, Harry Carman, an original participant in the Columbia undergraduate reforms as a member of the history department (1917-52) and dean of the college (1943-50), offered his personal reflections on the task and method of general education in the training of youth:

> We live in an age of rapid historical transformation. All over the world, old institutions, old traditions, and old ways of life are either disintegrating or being outmoded. Our principal task is the training of youth for citizenship and leadership in a democratic society in a new world. How best can this be done? Can it be accomplished through a system of free electives? Or can the goal be attained by exposing the student to a rigidly prescribed program of study covering his entire college course? Is specialization in a narrow field the answer? Are the methods employed at Bard, Antioch, Bennington, and Sarah Lawrence the surest way to produce the kind of citizens we want and need; citizens who have broad perspective, a critical and constructive approach to life, standards of value by which man can live nobly, a deep sense of responsibility for the welfare of their fellows, who are persons of integrity easily motivated to action in the cause of individual freedom, social justice, and international peace, who will use their leisure in ways creative and not corruptive, and who have capacity . . . to go on learning throughout life, adapting themselves to change without losing conviction?
>
> In the last analysis we should be concerned with results rather than with the method of obtaining the results. But I do not believe that the best results can be achieved by following a program that fails to take into account individual differences intellectual and emotional, that is overloaded

vocationally, that fosters narrow specialization, that is not rich in historic-cultural significance, and that, is not closely related to the contemporary scene.

What do we mean by the term *general education?* You may not agree with my definition. To me, general education is that kind of education which provides a common core of knowledge and which stresses behavior in a free society in terms of motives and attitudes. Knowledge, though important, is not enough. If citizens are to act intelligently, they must not only understand the world but accept personal responsibility for what goes on therein. Especially is this true in a land where the way of life rests upon democratic ideals and processes, even though at times these processes are almost smothered by selfishness, greed, and the quest for material wealth and power.[5]

During this period of academic ferment in the United States, one of the more perceptive analysts of the defects in European higher education foresaw the impending social convulsions of succeeding decades which he attributed in large part to the narrow education of the professional and political classes. Educated in the German university tradition of research and specialized instruction José Ortega y Gasset, a Spanish scholar, journalist, philosopher, and statesman, became increasingly conscious of the ignorance and the disrupting social influence of the putatively well-educated classes. Protesting that he loathed giving public addresses, he nevertheless eagerly accepted an invitation in 1930 from the Federation of University Students in Madrid to address them about the urgently needed reform of education. His treatment of this subject, published under the title, *Mission of the University*, extended far beyond the realm of Spanish higher education. Any member of the profession of American education or layman who wishes to consider the reforms that are necessary if higher education is to discharge its task of girding our people to grapple successfully with the global problems of our time could profitably examine Ortega's argument for a more comprehensive and germane education:

> . . . the gentleman who professes to be a doctor, or magistrate, or general, or philologist, or bishop — that is, a person who belongs to the directive class of society — if he is ignorant of what the physical cosmos is today for the European man, is a perfect barbarian, however well he may know his laws, or his medicines, or his Holy Fathers. And I should say the same of the person who has not a decently coherent picture of the great movements

of history which have brought Humanity to its present parting of ways (for our is a day of crucial situations). And I should say the same again of the person who has no definite idea of how speculative philosophy conceives today its perpetual essay to formulate a plan of the universe; or how biology endeavors to interpret the fundamental facts of organic life. . . .

From all quarters the need presses upon us for a new integration of knowledge, which today lies in pieces scattered over the world. . . .

It has come to be an imminent problem, one which mankind can no longer evade, to invent a technique adequate to cope with the accumulation of knowledge now in our possession. Unless some practicable way is found to master this exuberant growth, man will eventually become its victim.

The need to create sound syntheses and systematizations of knowledge, to be taught in the "Faculty of Culture," will call out a kind of scientific genius which hitherto has existed only as an aberration: the genius for integration. Of necessity this means specialization, as all creative effort inevitably does; but this time, the man will be specializing in the construction of a whole. The momentum which impels investigation to dissociate indefinitely into particular problems, the pulverization of research, makes necessary a compensative control — as in any healthy organism — which is to be furnished by a force pulling in the opposite direction, constraining centrifugal science in a wholesome organization.

Men endowed with this genius come nearer being good professors than those who are submerged in their research. One of the evils attending the confusion of the university with science has been the awarding of professorships, in keeping with the mania of the times, to research workers who are nearly always very poor professors, and regard their teaching as time stolen away from their work in the laboratory or the archives.[5]

The integration of knowledge and the integrity of man were obviously dominant themes in the general education movement. Their recurrent influence will be apparent in the discussion that follows.

Before speculating about the health of general education in the nation's liberal arts colleges in the seventies, it would be instructive to examine briefly the programs at three major institutions of higher education contrasting their objectives and curricula following World War II — the pre-Sputnik period when enthusiasm and support for these programs was, for the most part, peaking — with their current statements of purpose and companion curricular expressions. The colleges were integral parts of three great uni-

versities: Columbia, Chicago, and Harvard. These colleges are widely regarded as the innovative spirits of the general education movement. The Harvard report of 1945 entitled, *General Education in a Free Society*, commonly known as the Redbook, served an especially noteworthy role, Daniel Bell has remarked, as "the bible of general education," particularly in smaller colleges and state universities. Limited resources, varying academic style, aversion to uncritical conformity, or the opposite urge to climb aboard an educational bandwagon undoubtedly contributed to some of the fanciful translations that some of these latter institutions fashioned into programs they hoped would assure their entry into the company of the general education's elect.

One who wants to see the trend in thinking about the future of general education could use as a point of departure Daniel Bell's book of 1966.[6] In his later statement in 1973 he made the following remarks in a room crowded to the doors with eager listeners:

> If I look since the publication of my book to the elements which have further eroded general education it would be those three factors: the continuation, until now, of an emphasis on graduate education and research at the expense, institutionally and intellectually, of general education; the cultural attack on authority and the emphasis on personal experience at the expense of cultural tradition; and the inability to bring knowledge to bear on the solution of social problems, thus raisng questions about the synoptic efforts to cross disciplines and make policy the focus of the integration of general education.
>
> Behind all this, however, may be an even larger problem; namely, a set of crises in the disciplines themselves. The first major efforts at general education — those from the 1930s through the 1950s — was based on some notion of intellectual or philosophical unity of subjects or some common grounding in common subjects. The second revisionist effort (among which I count my own), was an effort to focus on unity of method (conceptual renovation) and grounding in a discipline in order to bring that knowledge to bear on intellectual and social issues. But if application of knowledge has faltered, and the disciplines themselves are in trouble, then some entirely different intellectual approach may be in order.

Going on, speaking of new curricular grounds for re-establishing general education in the seventies, Bell identified two themes —

the value aspects of social policy and the recurrent question of political philosophy — that should occupy the educational arena:

> One, I would say, should be, or must be, the centrality of normative questions. Fundamentally, a university simply cannot escape these issues, not in terms of taking sides — no university can do this without destroying itself — but by making normative questions the ground for an educational inquiry into what is happening to people, and by forcing the students to think through the grounds of their own philosophies as they confront relevant and real issues. . . .
>
> If one returns to the question of the normative problems of society, one can specify a whole range of issues which are immediately around us. . . . If the debate is conducted as it should be, with strict attention to the philosophical underpinnings of any particular position, one can, first, try to clarify the sociological process to determine why and how people hold the particular positions they have; then, by compelling these individuals to relate their interests to some larger body of principles, one can challenge them in their logic and exposition to force them to rethink the grounds of the values they hold. This is the recurrent power of Dewey for general education. This emphasis on normative questions could be, I think, a revivifying formula for general education in the next decade or so.
>
> The prescription is not just to take up ethical and political questions but to deal with the normative components of social policy, to specify the underlying values and to assess the consequences. This is only to confront the existing and emerging social "genius." We need a return to political philosophy itself as the central spine of general education. Political philosophy, necessarily, has to define the nature of man — his destructive as well as his creative potentials — and from that nature define the rules which can govern a just society and shape virtuous men.[7]

Columbia College

In 1917, Harry Carman, a first-year history instructor, found Columbia College to be an institution still largely under the influence of the Eliot free-elective system, allowing students, if they desired, to collect the 120 credit points for the A.B. degree without ever electing a course beyond the sophomore level and without pursuing the objective of obtaining a balanced education. Recognizing these deficiencies, at the close of the war, a small group of young men from the philosophy and social science departments began to ask what the major educational objectives of the college should be:

Increasingly, we came to the conclusion that the college should be a liberative institution in the sense that it frees the mind from ignorance, fear, prejudice, and superstition, and enables one to search for and contemplate truth. The college, we agreed, should be concerned with education for effective citizenship in a democratic society: citizens with broad perspective and a critical and constructive approach to life, who are concerned about values in terms of integrity of character, motives, attitudes, and excellence of behavior; citizens who have the ability to think, to communicate, to make intelligent and wise judgments, to evaluate moral situations, and to work effectively to good ends with others. Columbia College, we further insisted, should provide well-balanced education for its students, thus enabling them not only to develop a philosophy of life but also an educational foundation for whatever career or vocation each might enter upon. Having agreed upon overall objectives, we next asked ourselves whether the then existing curriculum with its multiplicity of often unrelated departmental courses was adequate for the realization of these purposes. We decided unanimously that it was entirely unsuited for the purpose we had outlined."

The offspring of this critical spirit was the "Peace Issues" course —the social science requirement known as Contemporary Civilization, a pioneer effort in the general education movement that would constitute the cornerstone of the reform of undergraduate education at Columbia for the next thirty-five years.

Contemporary Civilization began as a one-year course administered by the Committe on Instruction that cut across departmental lines and emphasized current social, economic, and political problems and their historical background. The mode of instruction chosen was small discussion groups (twenty-five to thirty students) with an instructor or professor assigned to each section for a full academic year. The course was prescribed for all freshmen irrespective of vocational or professional intentions. Even as is true today, Carman regarded the selection of staff as the greatest problem in all of the general education efforts:

We have never drafted a man to give instruction in any of our general education courses against his will. Moreover, we have exercised the greatest care in selecting teachers for our respective courses. To this end we have resisted all efforts to wish off on us persons who, we deem, are wanting in qualifications for the course. From the first we have set our standard high and have insisted on having teachers who are dynamic and inspiring

and who are persons of fine character, intelligence, broad education, and craftsmanship. We want teachers who are concerned not merely with imparting factual knowledge but with the meaning of knowledge in terms of attitudes and behavior, and with moral values. We regard a teacher as unfit for instruction in any of our general education courses who is not interested in students as individuals and who cannot win their confidence and respect."

After thirty years' experience in Columbia's general education experiment in 1957, Carman expressed an optimistic assessment of the program that suggested for the time being at least the staffing problem had been mastered:

Obtaining status and proper recognition for those who devote time to general education was at first very difficult. When the social science course (Contemporary Civilization) was introduced, many of the elder statesmen of the faculty looked down their noses at the course and those associated with it. The number of times the course was mentioned sarcastically or sneered at would fill a book. But it was not long before the students began to assert that it was the best course in the college. Even its opponents on the faculty soon learned that the students who had taken the course were better prepared for advanced departmental work than their predecessors had been before the course was introduced. The character of the course and the instruction therein soon won not only academic respectability but praise. Today faculty recognition of those who participate in the general education course is relatively easy. Recommendations for promotion or advancement in salary are initiated by the several departments. Only rarely now is a departmental chairman reluctant to give credit for work in general education on the ground that the instructor is "wasting valuable time that should be devoted to research and publication." In fact, we have only one such deparment, and that one is loaded with prima donnas few of whom are really concerned about the education of young men and women. Their god is research and publication, and they are oblivious of the fact that most undergraduates are not going forward to advanced scholarly work but that all, irrespective of what they do, should be educated to be responsible citizens.[10]

Through several decades general education evolved at Columbia. In 1929 Contemporary Civilization became a two-year sequence, the first year of which explored the European foundations of contemporary culture in preparation for the second year, an intensive study of economic and political problems in the United States.

A one-year Humanities course, introduced in 1937, surveyed the masterpieces of literature and philosophy from Homer to the nineteenth century. In 1947, the Humanities requirement became a two-year sequence. The second year was devoted to the study of selected masterpieces of the fine arts and of music. The recommendation of several academic committees to inaugurate a "specially constructed and well-integrated two-year course in the natural sciences" and courses "to stress inclusive organizing principles of the sciences rather than special techniques for mastering specialized subject matters" was less successful. The two-year cooperative sequence, Science A and B, was initially offered in 1934 as an option to the specialized science courses, but opposition from the science faculty and difficulties in staffing caused its discontinuance in 1941.

After the war, Ernest Nagel chaired a committee that issued a report calling for a science sequence to compliment those in Contemporary Civilization and Humanities. The plan envisioned a new interdepartmental course fashioned for the general student, but again implementation was delayed by inability to locate space and staff and to muster support from the science departments. Finally, the faculty settled for a jumbled distribution requirement quite unfit for the purposes of general education as conceived in the other divisions of knowledge. The bachelor of arts candidate was required to take two years of work in mathematics-science; either a full-year course in any two sciences or a single two-year course in one of the sciences. The 1975-76 Columbia College *Bulletin* indicates that the science distribution requirement has been 'further attenuated' to one year (two terms) chosen from the sciences of chemistry, geography, geology, physics, or psychology.

A brief examination of the bachelor of arts degree program for 1947-48 provides a base line for assessing the changes that have attenuated the program over the years.[11] To satisfy the requirements for the bachelor of arts degree, each candidate had to pass 124 credit points of work and obtain 60 maturity credits. Unless the student could demonstrate that he had the equivalent of the requirement by passing an achievement test, the following courses were prescribed for the degree:

1. Contemporary Civilization A and B (two years)
   Humanities A and B (two years)
   English A1-A2 (one year course in the practice of writing)
   Physical Education A and B (freshmen and sophomore years)
   Hygiene A
2. One two-term course from each of any two of the following groups:
   a. Mathematics
   b. Chemistry, physics
   c. Astronomy, botany, biology, zoology
3. Proficiency in reading one of the following languages: Latin, Greek, French, German, Spanish, Italian, Portuguese, Russian, Chinese, Japanese, or Hebrew, or another language with special permission of the Committee on Instruction
4. Attendance at weekly orientation lectures

In addition, before being recommended for graduation the student "must have satisfied the faculty as to his upright character, his intellectual progress in college, and his accomplishment in scholarship."

The quality of this early general education program and the eminence of the faculty are demonstrated by the names of some of those distinguished scholars who taught in it: Harry Carman, Jacques Barzun, John Randall, Jr., Herbert Schneider, Louis Hacker, Richard Hofstadter, Charles Frankel, Gilbert Highet, Ernest Nagel, James Gutman, and Moses Hadas. For comparison, the 1975-76 Columbia College requirements for the degree of bachelor of arts are: completion of 124 points, the last 30 of which must be taken in the college or in other divisions of the university, and unless the equivalent of the requirement can be demonstrated by passing an achievement test, the following courses are prescribed:

1. Contemporary Civilization C1101-C1102 (two terms; one year)
   Humanities C1101-C1102, C1121 and C1123 (two years)
   Freshman Composition C1001 (one term)
   Physical Education C1001-C1002 (one year)
2. Two terms of courses in the natural sciences, in sequence where indicated, from the following:
   a. Astronomy C1103 and C1104, or C1203
   b. Biological Sciences C1007, C1501 plus one 3000-level biology course, or Biology 1-2 (Barnard)

c. Chemistry C1403-C1404, or C1407 and C1408; (Chemistry C1001-C1002 is no longer offered, but students who have successfully completed the sequence may offer it in fulfillment of this requirement)
d. Geography C1005-C1006
e. Geology V1021-V1022, or V1051-V1052, or any two terms of courses selected from V1031, V1032, V1041, W1042
f. Physics C1001-C1002, V1003-V1004, C1006-C1007, C1021-C1022 or V1305-V1306
g. Psychology C1011, C1111 or C1211 or C1113, or W1201-W1202

3. Passing or achieving the second term of an intermediate language sequence, or taking a more advanced course in the following languages: Armenian, Chinese, French, German, Greek, Hausa, Hebrew, Italian, Japanese, Latin, Persian, Russian, Spanish, Swahili, Yiddish, or another language with the permission of the Office of Student Affairs
4. All students must complete either a major or a concentration. A "remoteness requirement" must be observed: two terms (a minimum of six points) or courses in subjects remote from the faculty of the student's major or concentration

The differences between these two curricula separated by some thirty years suggests a significant erosion of the role of the college in general education at Columbia. In its emphasis on pressuring the student to choose a career early, to identify a vocational intention, to select a major, to "concentrate" his interests, and to accelerate his passage through the college and into graduate school, the Columbia College of 1976 is more akin to the Columbia of 1905 represented by John Burgess and Nicholas Murray Butler than to the Columbia of 1946 represented by Harry Carman, Jacques Barzun, or Lionel Trilling. There were some significant stepping-stones that brought about this change in educational philosophy.

Beginning with the class that entered in 1954, the college abandoned the "maturity credit" system, which had allowed students to take a general degree, and substituted the requirement that all students complete a "major" or "concentration."

A second step in the erosion of the general education program was the decision in 1959 to abandon the common second-year Contemporary Civilization course. In response to intellectual

difficulties regarding the purpose of the course, pressure from the social science departments for students to begin work in their disciplines in the sophomore year, and difficulty in recruiting senior faculty to the staff, a substitution was allowed of two different terms, or a continuous year's work, in anthropology, economics, geography, government, sociology, Oriental civilization, or the old Contemporary Civilization course, to fulfill the requirement of a second year of work in contemporary civilization. By 1975-76, even the modified second-year requirement has been abandoned, permitting students now to elect courses as they choose. Second-year Contemporary Civilization does still exist among a number of electives administered by various departments which purport to treat general, contemporary problems from the perspective of a specific discipline.

Finally, the introduction of "multiple tracks" in the various disciplines placed a positive emphasis on adaptation of materials to the different needs and interests of different kinds of students with an attendant freedom for students to set their own pace in the college. However, there were detrimental effects: the erosion of commonality in the curriculum as students were isolated from one another in vertical shafts ascending directly to various graduate school specialties and the irresistable urge of graduate specialties to intrude further and further down the shaft into the undergraduate curriculum with prescriptions for advanced materials and new prerequisites for would-be graduate and professional students.

The 1975-76 selection of required courses in the natural sciences illustrates the function of multitracks. The physics department, for example, offers four beginning sequences:

1. C1001-C1002 or V1305-V1306: for the nonscience student (the so-called "physics for poets" track)
2. V1003-V1004, W1003-W1004, or V1103-V1104 with laboratory: primarily for premedical and other preprofessional students
3. C1006, C1007 or C1107, C1011 and C1012 with laboratory: a four-term sequence using calculus; primarily intended for engineering and physical science majors
4. C1021-C1022 with laboratory: replaces the first three terms of the four-term sequence for a small group of selected freshmen who

enter with advanced placement in mathematics and who have special facility and interest in mathematics and physics

From the natural sciences, multitracks have spilled into the social sciences: history, economics, psychology; and even into the humanities, including the freshman English course. Again, without denying the pedagogic merits of multitracks, their use, particularly by the social sciences, contributes another divisive element to the curriculum that further isolates students, departments, disciplines from one another, and re-enthrones specialization.

Moreover, the teachers of the general courses today do not to any degree include the great scholars of an earlier age. Preceptors, graduate students who excelled in their seminars and performed scintillatingly in their orals examination, have been liberally employed in the staffing of Contemporary Civilization. Preceptorships are considered departmental plums that pay comparatively well ($4,000 an academic year) for a minimal teaching load (one preparation a term) and allow students to devote their remaining time to the completion of the dissertation. Particularly in the boom years of the 1960s the departmental push to advance as many worthy doctoral candidates as possible resulted in a turnover of preceptors every two or three years. The guidance and support of senior faculty or older preceptors was rarely available to the new teaching recruit, and students searching for experienced instructors in Contemporary Civilization likened the process to playing the lottery.[12] Also during the sixties it was common for departmental chairmen, many of whom were convinced that there was no future for young teachers in the area of general education, to "promote" their preceptors from Contemporary Civilization or Humanities into a department where they could devote themselves to their discipline and advance their careers. These various forces combined have caused a decay of general education at Columbia. Two years before his death in November of 1975, Lionel Trilling, Columbia's internationally noted literary critic and gifted teacher, put it well when he commented:

From my long experience of Columbia College I can recall no meetings on an educational topic that were so poorly attended and so lacking in

attention and vivacity as those in which the Bell report was considered. If I remember correctly, these meetings led to no action whatever, nor even to the resolve to look further into the matter. The faculty simply was not interested.

Harvard College

Similar weakenings of support and creative restructuring have occurred at Harvard and Chicago. In 1943, then President James B. Conant appointed a university committee which he charged with the responsibility of developing "objectives for general education in a free society." After two years of deliberations, the committee published its report, under the title *General Education in a Free Society*. This volume, which was to become better known simply as "the Redbook," was to serve as the basis for the Harvard general education program until the report of the Doty Committee in 1962. The title of the Redbook suggests the aims of the report; to wit, suggesting those educational experiences and objectives which would prepare the citizenry to function effectively in a democratic society.[13]

In their report, the authors of the Redbook suggested two premises from which they hoped to derive their educational philosophy. The first concerned the nature of the change which the American educational system was undergoing. The authors perceived that the system was burgeoning and diversifying. Enrollments of students of more varying abilities and interests rose dramatically in secondary schools and colleges during the first half of the twentieth century, spurring a splintering and diversification of the curriculum as schools sought to meet the needs of a new and larger population of learners. The fragmentation of the curriculum was further abetted by the flourishing of scholarly research, which had opened up new areas of study.

The authors of the Redbook did not view the diversification of the curriculum as an evil in and of itself. They applauded the attempt of the schools to meet the needs of a diverse student population. They did, however, fear that the diversification of curriculum would serve to eliminate the commonality of an educational experience which they believed to be essential preparation

for citizens living in a democratic society. That is, they believed that the curriculum was in need of a common and unifying element.

Hence, the authors' second premise suggested the unifying element. The Redbook stresses throughout the essential validity and viability of liberal Western democracy. One ought not be surprised at the very central role which values and heritage of Western society play in the Redbook, nor should the work of these men be dismissed as chauvinism. Rather, one must remember that a nation which had gone from depression to world war to global power in the span of ten years stood in need of reassessment and reaffirmation. One gets the feeling from the Redbook that the recent threat of fascism and the perceived threat of communism were very much on the minds of the Harvard committee members who authored the Redbook. Whatever the merits or faults of the political and social philosophy implicit in their report, the emphasis on Western society was later to become a major target of critics of the general education program of Harvard.

Beginning with the two aforementioned premises, the committee established what it termed "a theory of general education." The "theory" was in fact an attempt to establish a number of rather broad objectives for the general education program. The authors expressed the belief throughout the report that attainment of these objectives would serve as adequate preparation for citizens in a democratic society.

The committee eventually established five objectives for general education:

First, general education ought to differ fundamentally from specialized education in its intellectual approach. A general education program ought to be a unified whole, which had at its focus the rights and responsibilities of a free man in a free society.

Second, general education should seek to cultivate certain characteristics of mind. Those abilities which the Harvard Committee held in high esteem included the capacity "to think effectively, to communicate thought, to make relevant judgments, to discriminate among values."

Third, general education ought bring to the student an understanding and appreciation of the cultural heritage of Western civilization.

Fourth, general education should function as a means whereby the fundamental values and principles of each of the major divisions of human knowledge are made manifest to the student. The report urged that the methodology of both the natural and social sciences be a fundamental part of the curriculum. The authors further stressed the centrality of human values in any consideration of either the humanities or the social sciences. The committee argued that the humanities are by their nature ultimately concerned with human values while the social sciences are the study of the conflict and institutionalization of human values.

Fifth, those responsible for a general education program ought to remember that while general education is primarily concerned with the student's intellectual development, the ultimate objective of general education is to develop the capacity for intelligent *action*. Hence, the integration of thought and action ought to be a central concern of the educator.

Having established goals for the program, the Committee on General Education went on to recommend the establishment of a number of specific courses, and that a total of six of the sixteen courses required for graduation be general education courses.[14] Of the six required general education courses, at least one was to be from each division of the college — the natural sciences, the social sciences, and the humanities. The student was to be permitted some latitude in his selection of the remaining three courses, though the realm of choice was to be limited to the list of courses approved by a proposed standing committee on general education.

The committee was insistent throughout that courses approved for fulfillment of the general education be distinct in purpose and content from specialized courses. To this end the Redbook outlines the proposed content of the three required courses. The course in the humanities was to consist of "great texts of literature." The Redbook indicates that, while the instructor's discretion could play

a part in the development of a reading list for such a course, the list, for example, might begin with "Homer, one or two of the Greek tragedies, Plato, the Bible, Virgil, Dante, Shakespeare, Milton, and Tolstoy." The committee suggested that the optional general education courses be developed by the faculties of literature, philosophy, and fine arts.

The social science course was to be entitled "Western Thought and Institutions," and was to explore the development of Western culture and society. The committee advised that the course be structured so as to present the social, political, and economic context out of which emerged the major political and social philosophies which have affected Western civilization, and proposed that the list of readings include works by Aquinas, Machiavelli, Luther, Bodin, Locke, Montesquieu, Rousseau, Adam Smith, Bentham, and Mill.

The committee's recommendation for fulfillment of the natural sciences' role in general consisted of establishing two courses in the sciences. One course was to focus on the physical, the other on the biological sciences. In both cases the committee counseled that the courses be taught in a historical framework with stress being given to the development of major concepts in each field and the methodology of scientific research.

The Redbook which was released to the Harvard faculty in October 1945 was approved "in principle." After several years of experimentation the faculty approved implementation of the program in March 1949. The class entering in the fall of 1950 was the first to be subject to the requirements of the full general education program.

With two exceptions, the program approved by the faculty was essentially that which had been proposed in the Redbook. First, the faculty ruled that students whose program of concentration included substantive work in the natural sciences could be exempted from the science requirement of the general education program. Secondly, the range of courses deemed suitable for fulfillment of the three elective general education courses appears somewhat larger than that originally envisioned by the members of the committee.

The program remained relatively unchanged and unchallenged for almost ten years. Equipped with the hindsight which thirty years of history can provide, one can see that the seeds of the program's demise lay in its rather narrow perspective on the world and a dubious psychology. It is a tribute to the early faculty[15] of the program that it carried on as successfully as it did.

The first break in the consistency of the program occurred in 1959 when the faculty accepted the report of the Committee on Science in General Education, better known as the Bruner report. The report rejected the historical and philosophical approach which had dominated the structure of the natural science requirement, and contended that "little is served by historical or philosophical treatments of the development or significance of science." Whatever the merits of such a contention, the Harvard faculty accepted this premise of the Bruner report and consequently permitted students to substitute any two natural science courses offered in the departments for the general education requirement in natural science. This was essentially a reversion to the distribution system of the first decades of the twentieth century.

The second major change in the Harvard program came when, in the face of mounting criticism that the general education program had become out of date and unduly rigid, the Committee to Review the Special Status and Problems of the General Education Program, popularly known as the Doty Committee, was appointed. In 1962, the Doty Committee quickly found that the Redbook was simply an inadequate basis for an educational program of the 1960s. Aside from the rather parochial commitment to the supremacy of Western society, the Redbook, it was charged, dictated a set quantity of knowledge, primarily historical and philosophical, which would no longer suffice as prepartion for participation in a rapidly changing world.

If the institutions of Western society could no longer serve as the focal point of education then a new means had to be found to unite the curriculum. If, as critics of the Redbook contended, courses focusing on non-Western societies and contemporary social dilemmas could have at least equal value to the student-citizen as

a selection of readings from John Stuart Mill, then one would have difficulty defining what could properly be termed general education and what lay outside the parameters.

The report of the Doty Committee was returned to the faculty in May 1964, with the recommendation that the general education program consist of two major divisions, the humanities and the sciences. This classification was an attempt to separate the quantitative, empirical approach to human knowledge from those disciplines which did not utilize quantification as a central methodology. Thus econometrics, behavioral and social statistics, and the like, would fall into the realm of the sciences while the theoretical areas of the social sciences would be relegated to the humanities. The social scientists did not accept this proposal with any great enthusiasm. The report, as one member of the Doty Committee put it, "was bombed into oblivion." In March 1965 the report was sent to the Committee on Educational Policy for reformulation.

In December 1965, a new General Education Committee was appointed and presented with legislation from the Committee on Educational Policy in April 1966. The Committee on General Education, under the leadership of Edward Wilcox, was mandated to create a more flexible general education designed to meet the needs of students of the 1960s while maintaining the old structural divisions of the Redbook. The committee responded to its mandate by inspiring the creation of a set of new, often interdisciplinary offerings. The rapid profusion of courses included in the general education program has become its thorniest educational problem. This rapid multiplication of courses reveals that the committee had been trying to tread the thin line between diversity of offerings and chaotic eclecticism. The program has retained the structural division of natural sciences, social sciences, and humanities. Within and among each an amazing variety of courses may be found ranging from the principles of physical science to the history of France. Though the attempt to diversify the general education program is certainly laudable and necessary, its lack of coherence and unity as a whole leaves unclear the educational outcomes. In

March 1971, the splintering of general education reached its climax when the Harvard faculty voted to permit the substitution of any two departmental courses in the appropriate area for any one general education course. This move appears to vitiate the general education program at Harvard by returning it, at least as far as any individual student is concerned to the distribution system in vogue before Conant's day. It reintroduces all the evils in that system which the general education conception was calculated to eliminate.

The tension between flexibility of design and clarity of purpose which has marked the history of general education at Harvard is perhaps inherent in the nature of general education. An educational program designed to meet the needs of students in a rapidly changing society will inevitably flirt with ambiguity and confusion. Many of the courses listed as general education courses in the Harvard catalogue appear well designed, interdisciplinary, and in keeping with the aims of general education. The current catalogue lists such courses as The Social Context of Medicine and Health in America, The Social Context of Science, Technology, War and Peace, and Law and Social Order. What is unfortunate is that the Harvard faculty has been unable to establish criteria for distinguishing those courses which fulfill the function of general education from those which clearly do not. Certainly the revisionists have a responsibility to develop a clearer central theme and a new system of curricular organization consistent with it. In any event the original concept of general education at Harvard has been considerably replaced by an early and intensive specialization for any student who chooses his courses in accordance with this latter goal.

The University of Chicago

In the earlier days of the general education movement, the clearest, strongest, most cogent voice urging basic reforms in higher education so as to provide a proper general education for American youth was Robert M. Hutchins, president of the University of Chicago. A perfect exemplar of the depth of intellect

and the breadth of learning of the type he advocated for all youth, whether they continued their formal education in one of the specialized divisions of the university or not, Hutchins contended in 1936 that:

> . . . The times call for the establishment of a new college or for an evangelistic movement in some old ones which shall have as its object the conversion of individuals and finally of the teaching profession to a true conception of general education. Unless some such demonstration or some such evangelistic movement can take place, we shall remain in our confusion; we shall have neither general education nor universities; and we shall continue to disappoint the hopes of our people.[16]

That Hutchins was not only a most perceptive observer of the conditions in American society and in the house of learning in his day, but a prophet as well, is proven by the state of our society today. We have universities to be sure in abundance, but we do not have general education. As he predicted, we are in a greater state of confusion forty years later than we were in 1936; and the attitudes of our people, old and young, show that their hopes to a marked extent have been disappointed.

Since Hutchins' institution, the University of Chicago, early adopted the most radical program of general education in the whole country, and for a score of years served as the example for the development of related programs in other colleges, it is appropriate to review it critically. From the time Hutchins arrived at Chicago in 1931, he engaged the collaboration of a group of colleagues committed to the idea that basic reforms were essential in undergraduate collegiate education in the development of a unique program of general education. The results of their efforts led to the establishment of a separate college division with distinctive features derived from Hutchins' concepts expressed in his *Higher Learning in America*. After some years of experimentation and revision had occurred the college program was firmly established. By the mid-forties, it differed in several important respects from undergraduate education at most other collegiate institutions. It allowed and encouraged students to enter the college after two years of high school. It placed students in the program on the basis of examinations which determined the extent of their earlier

schooling. Most importantly, and distinctively, its program consisted of a series of integrated courses covering the major fields of knowledge, a feature which differed materially from the practice elsewhere of allowing the student to choose a large proportion of his undergraduate instruction from a variety of courses, often completely unrelated, and it placed primary responsibility on the student for his own education by determining his eligibility for the bachelor's degree by requiring him to pass a series of comprehensive examinations not prepared by his instructors, but by an examining body.

The catalogue for 1947-48 describes the major objectives and general features of the college in the following words:

> The Chicago faculty has developed a system of general courses which cut across many special fields and consist of a careful selection of fundamental materials in mathematics and the natural sciences, the humanities, and the social sciences. A program in writing and language parallels these general courses. As the student acquires information and learns to think for himself, he should develop an ability to communicate this knowledge. The course in writing is designed to teach students to present information clearly, to explain a position or to set forth an argument in a precise and orderly way, to urge a proposal or to present a plan of action persuasively. In the last year of his college work, the student takes a course concerned with principles and methods, and designed to integrate the studies he has pursued. A reasonable mastery of the material of these courses is required of all students.
>
> The content of liberal education has been but one of the concerns of the college. A good college course must do more than provide a survey of the present state of knowledge. The body of that knowledge is not only vast but constantly changing. It is more important that a college student should learn how knowledge is acquired and tested in any field than that he should memorize a body of currently accepted information. It is more important, for example, that a college student should learn what kinds of problems the physicist investigates, how he formulates them, and by what methods he seeks to solve them, than that he should memorize a set of generally accepted facts or theories of physics. Knowledge worth the name must be more than a memory of facts and of favored interpretations of facts. It involves an understanding of the ways in which facts are acquired and the processes of reasoning by which they have been interpreted. All real knowledge includes a grasp of reasons. College education must, there-

fore, consist fundamentally of the examination of arguments and the practice of reasoning.

In the main, the college had its own separate organization and faculty which freed it from the domination of members of the upper divisions, many faculty members of which opposed the program of the college in principle.

In accordance with this philosophy and these goals, the college program consisted of the following course requirements: two one-year courses in writing in English, three sequential one-year courses in the humanities, three sequential one-year courses in the social sciences, a one-year course in mathematics, three one-year courses in the natural sciences, a one-year course in the biological sciences, a one-year course in the physical sciences, an elementary one-year course in a foreign language, a one-year course in the History of Western Civilization, a one-year course in the methods and relationships of the fields of knowledge, entitled, Observation, Interpretation, and Integration. There were some exceptions in these requirements depending upon the amount and kind of formal education the student had had at the time of admission, but no one could receive the bachelor's degree who had not mastered this subject matter and these intellectual methodologies.

This program of education was *general* in two respects. It was based on the thesis, advanced by Hutchins that all citizens irrespective of their personal intellectual interests or their future calling have to have an "intellect properly disciplined, an intellect properly habituated," able to operate in all fields. Second, the program assumed that specialized education for a life of scholarship or any other vocation should rest upon and not be confused with broad intellectual development.

The Chicago program had the merit, too, of placing the emphasis in education where it properly belongs, not on grades of achievement in a specific course, but on the body of knowledge and the intellectual abilities which the student had mastered and made a permanent part of his intellectual equipment. At the time of Hutchins' departure, opponents began to dismantle it structurally and restore features of the old distribution system which reintroduced specialized

majors and free electives inconsistent with the existing philosophy of a general, common intellectual experience for all students.

F. Champion Ward, who served as dean of the college for a number of years characterizes its program and faculty in the following words:

The college offered a balanced and prescribed program of studies in the humanities, social sciences, and natural sciences, mathematics, and languages, with culminating efforts to employ history and philosophy as means of "integration." Students were admitted to this program after ten, eleven, or twelve years of schooling, and they were placed in it at a level appropriate to their preparation and competence; therefore, they completed it in varying lengths of time. Three years (ay, there was the rub) proved to be the time required of most students. Upon completion of this course of study, the University of Chicago's bachelor of arts degree was awarded.

This curriculum was developed and taught by an autonomous faculty of the university, grouped in divisional staffs but without the conventional departments offering "majors" in single subjects. These teachers had the usual academic credentials in specialized fields. Some also belonged to departments of the university's graduate faculties; some did not. Advancement in the college faculty was based upon teaching and upon contributions to the improvement of the curriculum. Therefore, it was not possible to ruin the reputation of a member of the college faculty by "spreading the nasty rumor" that he was a good teacher.

The principal materials employed in the college were original works or selections therefrom ("Great Snippets"), rather than textbooks, and the principal method of teaching was by discussion of these materials in preparation for examinations not set by the instructor. Contrary to a number of widespread impressions, there was no master list of Great Books; most of the texts were modern in date; the medieval period was on the whole neglected; selections were changed more rapidly from year to year than in most courses in charge of individual teachers; and two years of laboratory work were required in the three-year natural science sequence.

The overall end of this education was to teach students "how to think." In a free and increasingly complex society, men and women are confronted constantly by diverse statements purporting to be true, by alternative courses of action claiming their adherence, and by individual works of art inviting their admiration. The college sought to give students the knowledge and intellectual competence required to choose wisely and live well in such a society.

In 1950, as dean of the college of the University of Chicago, I was rash enough to proclaim in print that "In the nation, 'general education' is

at last in vogue. Its principles bid fair to become the operative educational theory of the remainder of this century." This act of *hubris* was soon avenged. Three years later, on the darkling plain of the university's interfaculty council, my colleagues and I found ourselves struggling to salvage some part of the university's curriculum of general studies and some degree of authority over what remained. I had not yet understood the peculiar mixture of shallowness and volatility which marks the discussion and practice of education in America.

As Ward observes, substantial changes have been made that permit the student rather than the faculty to play a decisive part in determining the content of his program. Where in the forties all students took essentially the same complement of courses for four years, there are now considerable differences between students' programs depending on which of five options he chooses. He may major in the physical sciences, biological sciences, social sciences, humanities, or get a broader education in the New Collegiate Division. The first four divisions have been rejoined to the corresponding divisions at the graduate level. Many more faculty members now teach at both levels than was true earlier. Through the reintroduction of electives, it is possible to specialize intensively in contrast to no real specialization earlier. However, through the New Collegiate Division a student can gain a broad education somewhat like that which was the requirement earlier.

Chicago has, however, still retained more of the features of a broad general education program than the other institutions which established similar programs in the thirties and forties. Even within the divisions which emphasize advanced specialized instruction for graduate students, many courses are offered for undergraduates that cut across disciplinary lines in dealing with a variety of topics not customarily found in a single course. Moreover, all freshmen are still required to take the common core four-year courses which are not specifically related to their own major interest and many of the topics studied deal with such complicated human problems as population control and ethnography.

Perhaps the situation at Chicago can be summed up by saying that the all-encompassing general education program of a quarter century ago has been broken up, but a core of general requirements

remains which provides some commonality of learning for all students. Nevertheless, with the exception of students registered in the collegiate division, who constitute a minority, it is now possible to specialize in one of the four other divisions, and get a major in the humanities, or the social; physical, and biological sciences. This reversion to some of the principal features of the distribution system which characterized the college curriculum after the abandonment of the free-elective system early in this century tips the scales again in favor of specialization. Moreover, those who choose to complete the upper three years in the collegiate division constitute only a small percentage of the total college enrollment. The figures for this academic year are as follows: in the social science division, 566; in humanities, 407; in the biological sciences, 321; in the physical sciences, 285; and in the collegiate division, 53.

To what extent this reversion reflects the pressure toward specialized learning in the faculty or response to the demands of students who today are intensely concerned about using their college education to prepare for a specific job after graduation cannot be stated. Doubtless, both of these forces and others are at work. It must be admitted, however, that even with a return to divisional specialization in the college at Chicago, when compared with other undergraduate programs, Chicago does offer the student who wants to do so the opportunity to pursue a curriculum that will provide him with a breadth of knowledge and intellectual skills essential to live an informed and intelligent life. And in the last analysis, these have been the objectives of general education as expressed by the leading thinkers in the intellectual world for centuries. It is proper now to assess the possibility of a vital resurgence in general education in the entire community of American higher education.

Alexander Meiklejohn, "The Unity of the Curriculum," *New Republic*, Oct. 25, 1922.

1. John Stuart Mill, *Inaugural Address*, University of St. Andrews, Feb. 1, 1867 (Boston: Littell & Gay, 1867), 7-8. (Italics added.)

2. George P. Schmidt, *The Liberal Arts College* (New Brunswick, N.J.: Rutgers University Press, 1957), 186.

3. A helpful historical treatment of general education can be found in Russell Thomas, *The Search for a Common Learning: General Education 1800-1960* (New York: McGraw-Hill Book Co., 1962).

4. Harry J. Carman, "Educating the Individual: The Challenge of General Education," *Journal of Higher Education*, XVIII (December 1947), 460.

5. José Ortega y Gasset, *Mission of the University* (Princeton: Princeton University Press, 1944), 60-61, 90-92.

6. Daniel Bell, *The Reforming of General Education* (New York: Columbia University Press, 1966).

7. Daniel Bell, "A Second Look at General Education," *Seminar Reports*, I, No. 3 (Dec. 7, 1973), 5-6.

8. Harry J. Carman, "Reminiscences of Thirty Years: General Education at Columbia College," *Journal of Higher Education*, XXII (March 1951), 117.

9. Ibid., 119.

10. Ibid., 119-20.

11. *Columbia University Bulletin of Information: The Announcement of Columbia College for the 194th Winter and Summer Sessions 1947-1948* (Feb. 15, 1947), 45 and *passim*.

12. The flavor of student comments and frustrations can be sampled in the *Columbia-Barnard Course Guide*, a student-run consumer report on the quality of the course offerings in the undergraduate divisions that began in the early sixties and has served as a model for similar endeavors on campuses across the nation. Although Contemporary Civilizations's ratings have been rising in the past few years, the 1975 *Course Guide* continues to cite the inexperienced instructor or preceptor (the consequence of turnover and specialized graduate training) as the major villian eliciting the wrath (or despair) of students.

13. The reader should note that the Redbook also dealt extensively with the reconstruction of the secondary school curriculum. The authors of the Redbook were concerned with the problems besetting the educational system throughout the nation.

14. A Harvard "course" consists of a two-semester sequence. Thus the six general education courses constituted twelve semester-length courses.

15. The early faculty included such luminaries as Gerald Holton, H. D. Aiken, Crane Brinton, Samuel Beer, and Northrop Frye.

16. Robert Maynard Hutchins, *The Higher Learning in America* (New Haven: Yale University Press, 1936), 87.

IV. THE PERSISTING MISSION OF GENERAL EDUCATION

> Knowledge is not a loose-leaf notebook of facts. Above all, it is a responsibilty for the integrity of what we are, primarily of what we are as ethical creatures. You cannot possibly maintain that informed integrity if you let other people run the world for you while you yourself continue to live out of a ragbag of morals that come from past beliefs. — J. Bronowski

To reanimate the general education movement on a national scale will require an entirely different approach from that of the 1930s and 1940s. The primary motive in such a regenerative effort cannot be a determination of the basic instruction which the various departments must offer to acquaint students with the elementary content and the specialized skills in courses designed for those who intend to enter a scholarly calling. The original point of departure for curricular reconstruction today lies outside the academy. It consists of a review of man's major problems and the conditions of existence which all citizens will normally encounter regardless of their individual intellectual interests or their chosen career. In sum, to succeed today where it miscarried yesterday, the reshaping of general education must begin not with a consideration of subject matter but with human problems. Some of these will be as ancient as those treated in the Old and New Testaments and in the humanistic writings of the Greek and Latin literati. Other queries will be as new as the moral and political issues arising from the dangers of radiation inherent in the spread of knowledge about and the capacity to achieve nuclear capability among an ever-increasing number of nations.

Man's very nature and the surrounding conditions of his life demand that his education be concerned with problems and the decisions circumstances will force him to make. Personal problems will arise out of his own being, his physical needs for food, for comfortable living, for undisturbed rest, and his emotional needs

for love, a feeling of wanting to be a person of worth, of seeing meaning in his existence. Man also lives in a society of other human beings all of whom share thoughts and strivings similar to his own. The realization of satisfactions proceeds differently, however, with different members of a culture. Conflicts of interest arise which under a democratic form of social organization are supposed to be resolved by rational discussion and consideration of the overriding good of all. In attempting to deal effectively and satisfyingly with his own needs and to live in reasonable harmony with his fellow human beings a person must inevitably face puzzling questions, and in the last analysis, these questions must be answered pragmatically in terms of real life situations not theoretically in the laboratory or library.

Robert Heilbroner, a noted economist and author of *An Inquiry into the Human Prospect*, at the very outset of his treatise raises a question that undermines our long-held conviction that education, at least in its present form, has the potential to solve all human problems and to assure the future well-being of the race. He expresses the arresting opinion that:

> There is a question in the air, more sensed than seen, like the invisible approach of a distant storm, a question that I would hesitate to ask aloud did I not believe it existed unvoiced in the minds of many: "Is there hope for man?"
>
> In another era such a question might have raised thoughts of man's ultimate salvation or damnation. But today the brooding doubts that it arouses have to do with life on earth, now, and in the relatively few generations that constitute the limit of our capacity to imagine the future. For the question asks whether we can imagine that future other than as a continuation of the darkness, cruelty, and disorder of the past; worse, whether we do not foresee in the human prospect a deterioration of things, even an impending catastrophe of fearful dimensions.[1]
>
> . . . . .
>
> The present generation of adults passed its formative years in a climate of extraordinary self-confidence regarding the direction of social change. For the oldest, among us, this security was founded on the lingering belief in "progress" inherited from the late Victorian era — a belief suffused for some with expectations of religious or moral perfectability, for others with more cautious but no less sustaining beliefs in the solid prospects for bourgeois society.[2]
>
> . . . . .

Today that sense of assurance and control has vanished, or is vanishing rapidly. We have become aware that rationality has its limits with regard to the engineering of social change, and that these limits are much narrower than we had thought; that many economic and social problems lie outside the scope of our accustomed instrumentalities of social change; that growth does not bring about certain desired ends or arrest certain undesired trends.[3]

Society establishes educational institutions primarily to preserve the culture it has created or inherited, and wishes to pass on to future generations. In a democracy, however, provision is made for the improvement of the lot of the individual through his own efforts and the enhancement of the collective life through the joint consideration and action of the entire citizenry. As the processes of change proceed problems inevitably and continuously arise. This situation has existed since the beginning of time and because of the present improvements in communication and transportation, many earlier perplexing situations have in the past century become enormously more complicated. Some historians and observers of the present human condition believe that unless the riddles of our time can be resolved the fate of mankind rests in the balance. If education is to discharge its responsibility in this situation, it must help our people to identify the existing matters of concern, supply them with the most creditable knowledge related to their proper treatment, cultivate the habits of reasoning that lead to sound conclusions and courses of action, and invest the whole process of education with a consideration of the values that properly applied in dealing equitably with bewildering human situations will enhance the conditions of life for this and future generations.

It is impossible and unnecessary to catalogue all the matters in our society which must be thoughtfully dealt with if life today and tomorrow is to be worth the living. They are abundant and everywhere evident. The mere citation of some of these harrying situations will illustrate where the principal thrusts of education must be. If this imposing list of exigencies causes anxiety in the lay reader, it need not do so. Nor need the educator feel that the responsibilities they place on him and his associates are intolerable or incapable of discharge. Their resolution, however, will require a somewhat

different set of purposes, content and methodology of instruction, and techniques of evaluation in the educational effort.

Problems: The Core of Instruction

Present urgent concerns should serve as the focal point around which programs of general instruction are organized. They would include such affairs as inflation, energy availability and consumption, the real as contrasted with the fictitious functioning of government, the failures in our judicial and penal systems, the impact of the various media especially those engaged in advertising, international affairs and the character of our foreign policy, the plight of the consumer and his representation in the bodies that control public utilities, policy-making actions of labor and management through arbitration in which the user of goods and resources has no voice, wars or lesser conflicts in various parts of the world in which we are or likely to become involved, the rise of terrorism in our own society and the other cultures which for decades have had high levels of formal education and relatively high levels of economic well-being, the increasing use of alcohol and other drugs especially among the young, sex in all its relationships and complications, racial conflicts at home, particularly those involving school busing, religious conflict, equal access to education and employment, the value system by which we shape and manage our individual and social lives, equal rights for women in all sectors of life, social responsibility for the aging, retarded, infirm and the emotionally disturbed, the citizen's right to privacy in his own life and in the community, and a host of other matters the solution of which will determine the well-being of our people at home and our status among the nations.

In any new attempt to reconstruct the curriculum and the life style of the campus so as to prepare youth for a more enlightened and effective life one obstructive assumption must be rejected at the very outset. It is the mischievous notion that to participate in public decision making on such a ubiquitous social issue as, for example, environmental pollution one must acquire a *huge body of systematized knowledge* drawn from the research of chemists, engineers, and petrologists, to say nothing of the related arcana of humanists and social scientists. To gain insight into the nature

and sources of reliable knowledge the student must, to be sure, advance into the upper reaches of a single discipline, although this theme has obviously been overplayed in recent years to recruit students into the splintered courses in the various fields of learning. But having gained an acquaintance with the ways in which scholars go about the task of producing "reliable" knowledge in one field, it is patently not necessary to repeat the process in all others from which the effective citizen must gather the information he will need to make informed judgments.

In fact, the whole foundation and efficient functioning of a modern democratic society is at issue in the conclusions reached on the kind and range of intellectual experiences required for making decisions on the major problems of our times. If it is posited that participation in the discussions of such matters as ecology or the distribution of income in a democratic society, problems of prime concern, requires the student to pursue a long sequence of courses in the related disciplines, then our traditional system of citizen involvement in public decision making obviously breaks down of its own weight.

Entirely too much concern has been voiced in recent years about the difficulties imposed on education by "the explosion of modern knowledge." The exponential increase in the bulk of facts in the various fields of scholarly endeavor is undeniable. The real utility of much of this massive burden of fact and theory to the nonspecialist or even to scholars in other areas of study is negligible. Even granting that the product of modern research is indispensable in shedding light on the intricate problems with which scholars are properly concerned, it does not follow that the average citizen needs to know anything about the activities through which much new knowledge was derived or the implications of its results for further study.

Participatory democracy is shrinking among the nations. If this type of social organization and government is to be preserved and reinvigorated in the United States, and as a nation we are to regain our image among others as a self-determining, freedom-loving people, the major decisions affecting the human enterprise cannot be delegated to a group of elitely informed surrogates.

The potential evils inherent in a narrow, specialized, professional education were recently dramatically expressed by the seventy-year-old Albert Speer, Hitler's minister of munitions, when he was released from a twenty-year prison term. According to the columnist Sydney Harris, in an interview on the Phil Donahue TV show, Speer said: "People who ask what 'practical' purpose there is in studying such subjects as history and philosophy need to be reminded that they are the only subjects that ask fundamental questions—what is the nature of man, what is the good society, what are the proper ends of civilization, and so on." Harris goes on to say: "The Germans were the most educated nation in the world, in the narrow sense of scholarship and technical skills, but this was not translated by their academic system into ethical or philosophic terms." Then the commentator adds: "Too many talented men like Speer grew up innocent of the moral truths and social opinions it took him twenty years in prison to recognize."[4]

As the founding fathers contended, effective participation in social decisions presupposes the general dissemination of knowledge among the people. The great modern mass of esoteric knowledge must, however, be sifted, first, to let the breeze of common sense winnow out the chaff of trivialities referred to by Maslow, Kaplan, and other perceptive intellectuals and, second, to extract the *relatively* small body of fact and theory the average citizen must possess to play an informed role in the decision-making processes affecting his own life and the lives of his fellow citizens.

Rejecting dictatorship, the other option to a democratic society is to embrace some form of intellectual oligarchy in which the few highly informed in the various fields of knowledge will make all decisions on public issues and the quality of life that flows from them. As philosophers through the ages have observed, and as recent events have so clearly demonstrated, this simplistically attractive proposal suffers from two serious defects. First, some of the major issues of life cannot be dealt with definitively even by the most fully informed minds, because with all our vast resources of erudition no one has yet come up with irrefutable answers to the most important human questions.

The more compelling objection, however, arises out of the fact that, as the recent conduct of some of our public officials has so dramatically demonstrated, fullness of knowledge, intellectual skill, sound integrity, and unselfish concern for the common good are not necessarily closely related in the behavior of even "well-educated" citizens. The brightest and best informed may be moved by self-interest, not by concern for the public good. An informed people in whom the educational system has inspired ideals of high-minded dedication to the common good, a code of values by which to guide our public and private decisions remains the only acceptable alternative to control by informed specialists or crafty scoundrels. A proper general education for all, comprising values as well as facts, provides the sole instrument for attaining this social goal without which, as Whitehead declares:

> Mankind is now in one of its rare moods of shifting its outlook. The mere compulsion of tradition has lost its force. It is our business — philosophers, students, and practical men — to re-create and re-enact a vision of the world, including those elements of reverence and order without which society lapses into riot, and penetrated through and through with unflinching rationality."

Student Involvement in Reform

Constructing a broad interdisciplinary program to meet the needs of the day must also take into consideration another factor largely missing in kindred earlier efforts. The interests and the previous life experiences of youth (and hopefully adults as well) who are going to pursue such courses of instruction must be considered. College students of the 1970s differ significantly from their forerunners of a quarter century ago. Today's student comes to higher education with the advantage of having learned much about the condition of the human enterprise at home and in the four corners of the earth. Travel and rapid communication by radio and television have provided knowledge and cultivated questioning attitudes about world events that his father knew, or cared, little about. Moreover, today's students have clearer conceptions and firmer convictions about the rights of citizens in our democratic social order. Possessed of additional knowledge and moved by a

spirit of independent judgment many students today feel that much of their learning, instead of treating the commanding issues of our time, requires merely the acquisition of bodies of esoteric knowledge little if at all related to the matters in our common life about which they are keenly concerned.

Much more than their predecessors students now recognize that much of the instruction offered in the separate and proprietarily conscious departments in the enterprise of learning is designed to meet the needs of a small percentage of their classmates. This instruction has for several decades been more and more designed for those who intend to follow an occupation for which advanced professionally oriented courses are preparatory. A controlling fact, therefore, in any reorganization of the curriculum and the other educational experiences of the campus must be that the youth of today are aware, as educational philosophers for two thousand years have been, that the character and quality of education to a large degree determine the character and quality of life. Whatever committees, therefore, may be established to reconsider the goals and the programs of higher education for the days ahead ought to include not only faculty members from a variety of disciplines, but highly motivated and knowledgeable students.

In an insightful book dealing with the need for change in higher education, and the part students ought to play in it, Harold Taylor, former president of Sarah Lawrence College, has perceptively observed that:

> When the freshman comes to college he should begin his college career with a freshman seminar designed to explore the problems of learning in his new environment, of how to make use of the resources of the university and its surrounding community, and of how to relate to the problems and issues of contemporary society and its educational and cultural system. . . .
>
> During the first days of his first week, the freshman should spend most of his class time in this seminar, where the question of what courses and teachers he should choose would be the subject for group and individual discussion and conferences with his adviser. This would include not only the choice of courses but the variety of alternatives one or another combination of courses could offer in planning for a future career or in simply planning for an education built around his strengths and interests.

This freshman seminar would be the student's center of gravity in the whole first-year curriculum, the place to which he could bring whatever problems he was concerned about, where he could make intellectual companions and colleagues, and could count on a direct relation with one person responsible for him—the seminar leader—who could be a mature undergraduate, a selected graduate student, or a faculty member interested in students.[6]

The kind of general education program that would emerge from a consideration of the major social issues and problems of our time and from the uninhibited input of student opinion would differ basically from the distribution requirements which have once again widely replaced the more general and relevant instruction of several decades ago. E. Alden Dunham in discussing the inadequacy of undergraduate education and the need for a new degree program for college teachers contends that:

If student activism today means anything, it means a revolt against professionalism divorced from the realities of life as students see them. At no time in our history has there been a greater need for a general education movement that has relevance for the hordes of young people pouring into our colleges. This means a combination of experiential and academic education that guides student energy toward constructive ends. Experimentation and innovation in the curriculum of the first two years of college are of absolute importance, and the emerging institutions ought to take the lead. So far they have not; they have instead patterned themselves in content and manner after the more prestigious institutions.[7]

Barnaby C. Keeney, a former dean of the graduate school at Brown University, also affirms the idea that graduate faculties ought to give understanding consideration to what is occurring in the colleges and to the attitudes of students toward their learning experiences. In an article on the Ph.D. degree he observes that:

. . . There seems to be in the graduate school considerable isolation from what is going on in the colleges, even when the college and the graduate school are in the same institution or university. I wonder what the students are going to do when they get around to trying to change the graduate schools. They have, after all, produced more change in the colleges than the reformers have over a period of two decades. They may very well do the same in the graduate schools. They may do it well, or they may do it hastily and without great thought, even destructively. It would behoove the graduate educators of the country to take their situation more seriously.[8]

New programs, though they would have the same wide-ranging goals, would perforce differ in content, structure, and methodology of instruction from institution to institution in accordance with the peculiar character of their own faculties and student constituencies. It would be calamitously abortive to begin such academic reconstruction with the thought that one suitable body of knowledge could be organized for a general education to fulfill the needs of students in all types of undergraduate institutions. The unimaginative aping of the general education offerings at such prestigious and complex universities as Chicago and Harvard by colleges ranging widely in constituencies and resources in the 1940s accounted in part for their inadequacies and ultimate dissolution. Moreover, the vitality and motivation generated on a particular campus by the intellectual labor and commitment involved in rethinking the purposes of the changes and in designing the new structure are essential to the later dedicated participation of those who are to conduct the programs and appraise their merits and weaknesses.

Education and American Choices

In accordance with the principle enunciated earlier that the starting point for any renewed attempt to design a more adequate general education should be a review of the principal problems of the day, the first decisions that have to be reached relate to the kind of life the American people wish to re-create for the third century of our nationality. No patriot can object to the series of public events already in progress or planned to celebrate the two hundredth anniversary of our nation's birth. Nor should even the most cynical critic of social conditions today object to a public exhibition of our unmatched achievements as a people.

In view of the confusion and internal conflict at home, however, to say nothing of our enormously complicated international involvements, dedicated and thoughtful citizens must ask themselves how in the years ahead our priceless traditions of freedom are to be preserved and our condition of well-being enhanced. Several major efforts inside and outside the federal government have been made to assess the present condition of our national life and to

project our goals for the future. Vice President Rockefeller himself appointed, and privately supported, the extensive deliberations of a panel of experts to prepare a set of recommendations on social choices in our country, but the results of the panel's deliberations have, as of March 1976, not been released.

It would seem timely for the President of the United States at this critical stage in our history to appoint a national commission of the highest qualifications to identify attainable national goals. The membership of such a body should be free from the restraints of politics and the biases of self-seeking pressure groups. Their mission should not be to make further elaborate scholarly studies but rather, with the help of a qualified staff, to bring together the existing abundant literature on national aims and priorities, and to produce a report proposing practical actions toward their achievement. The recommendations of such a body could, of course, identify the potential contributions of a host of social agencies other than education to the achievement of a richer, more stable, and more equitable national life. The main body of such a report should, however, consist of a set of recommendations providing for a redirection of the general education of our citizens from the earliest to the latest years. A subgroup of the best informed and objectively minded educators and lay citizens should subsequently be enlisted to use the report in preparing a separate document detailing its practical implications for the entire educational system.

In brief, an effort to revive general education ought to begin with an analysis of our national goals and conclude with clear recomdations regarding educational changes required for their realization.

The Problem Approach to General Education

Using this information as a basis, institutions should initiate courses of action leading to reforms which the various departments and their members could launch in the early future. The departmental involvements should be adjusted to the contributions which specialists in the various branches of learning could make to a rounded program of general education conceived in terms of social needs.

The guiding principle in course organization and teaching methodology in such new curricular ventures should be the confronting of the individual student with the problems of life today, and then offering him the opportunity to see how existing knowledge from a wide variety of sources could be employed in their solution. Students should participate fully in the discussion of these social goals and the various alternative means of reaching them through the fuller, more relevant education of our people. Within the limits of this presentation it is not possible even to sketch out the content or any structure of general applicability in the development of such courses, but an illustration can be provided to show how one such problem might be treated.

Objections to the problem organization of the curriculum for the purposes of general education must first be met, however. The problem-solving approach to curricular reconstruction may be rejected on several grounds. First, the world changes; therefore, the problems change; hence, what is learned today will be inapplicable tomorrow. Second, principles and basic theory of continuing validity will be neglected in the concern with the amassing of a body of immediately useful facts. Third, knowledge and the institutions which society has established to pass it on to each succeeding generation are not structured on a problem-solving basis.

The answers to these objections are not hard to find. It may be hard, however, to persuade the politically powerful leaders of the academy to accept them. Examining the objections: first, the transitoriness of reliable knowledge is an undeniable fact. The outdating of knowledge is equally a problem in the systematic courses in the several disciplines and like general courses would have to be updated as well. Hence this argument against the problem-solving approach has no special relevance in the case of general education. Moreover the most important processes of intellectual activity are not concerned with the ingestion and regurgitation of information. They should involve the critical examination of materials which bear on given human situations, the capacity to analyze and evaluate existing information, the ability to locate and appraise the authentic sources of knowledge, the skills of logical

and coherent thinking, and the willingness to suppress bias regardless of personal consequences. With suitable teaching these qualities of mind can be cultivated. Indeed they ought to be the essence of intellectual preparation for dealing with any problem if education is to have enduring value. Merely passing on bodies of fact or ideas, as was done so often in earlier attempts at general education and, it might be added, continues too often to be the practice today, even in the systematic courses for majors in the various disciplines, is self-defeating.

Second, whether principles and basic theory will be neglected in general education concerned with transitory problems will depend again on the methods of instruction. If the learning process involves a mere amassing and transmission of information relevant to the immediate problem under consideration, theory and inclusive principles will be neglected. If, on the other hand, the matter of immediate concern is examined in the light of overreaching concepts, if relational rather than discrete thinking is employed, the current situation will be seen and resolved in its larger intellectual and social contexts. Thus, controlling principles will not only be pertinently applied, but the practice of searching for these larger explanatory concepts will be cultivated. This practice exemplifies the real meaning of the term "general" in contrast to the earlier concept which connoted the gathering together of a large body of knowledge which all graduates were expected to possess.

Third, the objection that both knowledge and the academy are so structured as to make teaching and learning on a problem-solving basis impracticable is incontestably valid. The contention, however, that these conditions must continue indefinitely is certainly not true. Structural and organizational difficulties are really the basic stumbling blocks in any improvement in the character and quality of higher education. Unless the barriers that separate the various bodies of knowledge can be breached and the academic satraps which now have control can be brought into cooperatively working units, it will be impossible to develop an adequate general education. The social problems mentioned earlier will then be resolved not by reasonable consideration of the urgent need for a reconsideration

of the character of undergraduate education, but by the force of casual circumstances, or if the public reaches the conclusion that existing practices are totally ineffective, by outside dictation of policy.

Crime as an Educational Problem

Having dealt with the arguments against a problems approach it is now necessary to show in a modest way how one pressing problem of our day might be treated. One such matter of which all citizens are keenly conscious can be used to suggest the content and structure of a new type of general course — a hypothetical unit of instruction dealing with the complicated business of crime. Such an instructional unit would as suggested necessarily draw upon the services of a number of persons possessing particularly relevant knowledge and experience. To be sure, many courses are already offered by specialists in this field, by sociologists, criminologists, and penologists. Regrettably, because of required prerequisites and the specialized nature of much such instruction, with the exception of a few students who intend to follow a career in a related occupation, the number of undergraduates who emerge from college with any more reliable knowledge about the incidence, etiology, and treatment of crime than they had when they entered is disturbingly small.

Moreover, the human values involved in dealing with criminals and their victims are often buried under a plethora of facts and theories remote from the realities of the street. It is consequently not surprising to hear in social gatherings of persons holding bachelor's or even advanced degrees suggestions for dealing with law breakers which reveal total ignorance of the complex forces at work in felonious behavior. These proposals run all the way from sterilization of all those convicted of major crimes to prevent the propagation of their kind, which no reputable geneticist would support, to the lynching of suspects on the spot which has been proven to be no deterrent even if its violation of our doctrine of innocent until proven guilty is disregarded. Less drastic but equally uninformed and simplistic proposals are commonplace among the "educated" for handling other pressing issues of the day such as

those related to ecology and energy which affect the daily lives of all our people. The behavior of these modern pseudo-Solomons exhibits the fact that they know nothing about the complexity of these problems nor about the intellectual methods of dealing with them. More importantly their education has obviously failed to accustom them to consider the human value considerations involved, which is really the shortcoming which prevents us from getting at the root causes of our present predicament.

If the common run of citizens who have had the advantages of an advanced education are to be able to think about and participate in public discussions of such an urgent social problem as crime, their education must clearly embrace a different content and a methodological approach which differs from common practice today.

These complex and greatly varied problems, though they require masses of reliable facts and objective consideration by informed citizens, obviously ramify so widely in the structure of modern knowledge that an instructional program made up of the usual limited specialized units of instruction cannot possibly meet the needs of the average citizen. These problems and issues cannot be adequately treated even by experts in the comprehensive fields of learning such as the social and natural sciences. Such extensive subjects require for adequate treatment the intimate collaboration of persons who possess knowledge and experience in a diversity of disciplines the content of which bears some relationship to a particular problem.

In the matter of crime, for example, a sensible way to begin might be first to analyze the elements in the life of individuals and in society at large which appear to be related to criminality and its causes. An abundance of factual data already exists on this subject and there are in most institutions or communities persons possessing definitive and expert opinions on this complex subject. One can readily identify related aspects of the personal and social life of the potential or actual law-breaker which are treated by the various disciplines represented in most institutions of higher education. Normally these would include sociologists, psychologists,

economists, political scientists, chaplains, nutritionists, and others whose systematic knowledge of their subjects has an obvious contribution to make to the design of a comprehensive program of study dealing with crime, its causes and cures. Moreover, most communities in which colleges are located include persons outside the teaching profession whose experience and knowledge could enormously enrich and make more realistic instruction related to this subject including lawyers, social workers, judges, parole officers, and psychiatrists. Eventually, the programs of graduate schools, as will be outlined in detail in Chapter V, should be so altered as to enable those who pursue the Ph.D. degree in the expectation of becoming teachers would have a sufficiently broad knowledge of the related subject matter, but for the present a team approach will be necessary.

Mechanisms can be found to focus the resources of this type of varied group of knowledgeable persons on the difficult task of interrelating their specialized experience in a meaningful way for undergraduate instruction for nonmajor students. The same process should be employed in dealing with the other major topics of concern among the citizenry generally. Unlike the earlier attempts to devise this type of integrated unit of instruction the designers should not think in terms of a kaleidoscopic presentation of a stream of tid-bits of knowledge. Students in those days left courses having experienced only impressionistic sketches of complex social problems. This disorganized and superficial treatment of complicated subjects was one of the weaknesses of general education which contributed to its undoing and in this respect its critics were justified. The goal should be instead to interrelate the varied knowledge and skills of persons who have both studied crime in the abstract and have had experience in dealing with it in the concrete. Such courses should require that students also have direct experience not only with those convicted of antisocial acts, but with the conditions responsible for such behavior as well.

Such programs obviously cannot be designed by the representatives of one department, or even one academic division. Moreover, at least in its initial stages, committees on curriculum or academic

policy other than setting the broad framework of operation cannot alone perform these functions. *Ad hoc* committees composed of members of widely varying competences chosen primarily because of their interest in such instructional reforms and committed to the labor involved can, however, if given the time and institutional resources, reconstruct general education programs along these functional lines. Administrators have a crucial part to play in this endeavor to reconstruct the curriculum by reducing the customary load of professional responsibilities of those who are willing to undertake these assignments. The typical liberal arts college especially under current financial limitations will be unable to undertake these major readjustments in their offerings. Unusual outside help will be needed.

National foundations could find no more rewarding use for their funds than employing them to accelerate this basic reconstruction of American higher education. They should provide financial assistance to those institutions which show convincing evidence that they are prepared to free faculty members from their normal teaching assignments and other professional tasks to discharge these responsibilities, and foundations should before making such grants have evidence that administration and faculty members mean business, have a clear conception of what they want to do, and have conceived the means for evaluating the results. If a dozen institutions could be given adequate support, in the neighborhood of a hundred thousand dollars a year for at least four years, a normal student generation, and considered pilot experiments were launched, some very substantial results might be expected. Tinkering with new curriculum models on a casual basis, as was done earlier, will not produce fruitful results. However, it will give the recalcitrant conservatives the objective evidence they will need to undermine the entire enterprise, not only on a single campus, but throughout the world of learning, as was also done earlier.

It will be contended at once, as it has been in the past, that getting together such a group of knowledgeable persons on a regular basis, sustaining their serious attention and effort, and administering such a reform program will be virtually impossible. No one who

has been involved in an effort to reorganize unrelated units of instruction in connection with any of the problems previously mentioned will take exception to this allegation. The process is time consuming, taxing on the limited resources of most institutions, and to academics more interested in subject matter than in vital human problems the essential exercises may be boring. The answer to this objection is simple. It can be put in the form of questions. As a people, do we want to deal effectively with the problems that are undermining our national and personal well-being, or do we not? Are we concerned about the character and quality of life our children will experience, or are we not? If the answers to these and related questions are affirmative, then the necessary human and financial resources will be provided so that this essential function can be consummated.

This is no one-time activity. Each of the major issues of our day, and new ones as they arise, must be treated in the same interdisciplinary manner and organized around the abilities and the instructional needs of the cross section of students who do not intend to spend their adult lives in activities related to scholarship.

Moreover, if lasting reforms are to be achieved more comprehensive means of evaluation must be devised to determine the growth in knowledge about, and interest in, the topics considered in a series of such broad intellectual experiences. A principal reason for the collapse of earlier efforts at this type of curricular reform stemmed from the lack of adequate instruments of evaluation either of the performance of the individual student or the effectiveness of the program itself. Critics made such charges as that the student in general courses did not get into any constituent subject deeply enough to master the essential facts or to acquire the skills of intellectual workmanship; that students were thus handicapped in any further intellectual development or in the continuation of their formal education in a graduate or professional school; that the products of such superficial instruction possessing only a modest knowledge of any field were worse off than those with none, because they had been misled into believing they were competent to make sound judgments on social problems, when their knowledge was

inadequate. These and other depreciative judgments were expressed which neither at the time nor since have been proven or disproven, because no means adequate to the task of evaluation has been available.

The problems of evaluation are therefore of paramount importance if renewed efforts are to rest on firmer ground to resist self-serving attacks. New instruments and procedures for evaluation will be required. In the first place, a mere measurement of the amount of factual information the student has acquired may neglect the evaluation of the most essential processes involved in dealing with dynamic, living situations. Examinations which determine principally the acquisition of information on the increase or decrease in homicides, burglaries, and rape may, for example, reveal the student's awareness of existing social pathology. Yet, such tests may without analysis of the complicated causes involved or the relative effectiveness of various types of therapy do little to help the student play his proper part as a citizen in meliorating the social conditions which lie at the basis of antisocial behavior.

Moreover, there is a strong resistance among students today to requirements of any kind. It may be desirable, therefore, to give them the option of satisfying the general requirements laid down by the faculty for the awarding of a bachelor's degree through a variety of extramural and self-motivated learning experiences. Tests which reveal the satisfaction of the requirements for a degree, including general knowledge and intellectual skills, can thus be used to relieve students of specific course requirements when they can show an equivalent achievement through other learning experiences. These innovative practices of evaluation may also reduce the proportion of the total four-year experience which would otherwise be devoted to the acquisition of an effective general education. But, if the institution is to be assured that each student has gained the requisite knowledge, intellectual skills, and enduring interests in the major issues of the day some form of general examinations must be devised to assess the changes that have taken place in these respects during the college experience.

These means of testing the results of learning will have to be quite different in another respect from those traditionally used in courses in the several subjects. If general courses are to deal with human problems rather than the systematic development of a single subject, evaluation of the results of instruction must include growth in personal traits other than the mere capacity to absorb cognitive material. Impressive attempts are already being made to assess changes in attitudes, ideals, character and personality development, and general emotional predispositions as they relate to real human situations. Full advantage should be taken of these devices to measure the total impact on the student's growth during the learning experiences inside and outside the classroom.

The criticism that the total proportion of the undergraduate experience that may be absorbed in dealing with the major problems of the day, and preparing students for a continued interest and ability in their solution may at first sight appear to be valid. An excessive amount of the undergraduates' time may seem to be devoted to general education with the result that advanced specialized instruction required for futher education in a graduate or professional school for a career will be detrimentally reduced. Properly organized, with the trivial and irrelevant eliminated, the proportion of the conventional four-year undergraduate period devoted to this purpose should not extend beyond a third to a half of the total time available. In terms of the consequences in the preservation and enhancement of our culture this is not an unreasonable demand.

This kind of exercise involving the large range of social problems identified above as well as others that will emerge as the ramifications into the various subject matters are traced out will demand the unreserved commitment of the entire academic community. If there are members who do not wish to become involved they ought not in good conscience erect obstacles to others who are committed. Many general education programs have withered on the vine because of the covert opposition of the specialists more interested in getting majors for their own courses than in enlightening the public concerning the adverse conditions prevailing in our society and in

bringing their own special knowledge to bear on the elimination of these defects. The nation cannot afford another educational abortion similar to that of the past several decades without risking its own survival. We are in a cultural crisis of fateful proportions and only the full use of our massive resources of knowledge, intellectual ingenuity, and moral commitments will assure the preservation of the personal well-being and social freedoms we have enjoyed for two centuries.

Can Plans Which Withered Earlier Flourish Today?

What reason is there to believe that reforms concerned with the general education of our people that did not succeed a quarter century ago can be accomplished today and endure tomorrow? One can realistically hope for greater success now because of the basic changes that have occurred inside and outside institutions of higher education. Four such changes are of fundamental significance.

First, the public generally is more inquisitive about and some are disillusioned with the outcomes of college education. Second, a much larger segment of the profession is now willing critically to examine the policies and practices of higher education. Third, a shrinking labor market has made aspiring members of the teaching profession more amenable to a consideration of new concepts and new activities. Fourth, some of the most distinguished members of the society of learning are themselves troubled about the conditions of life today and convinced that its members have a moral responsibility to re-examine the relationship between education and the quality and character of our private lives and our civic responsibilities.

First, the public questioning of higher education. A more likely possible inference is that the American people by and large are not disenchanted with education *per se*, but rather with the policies and practices of the institutions which have been given almost unlimited freedom in determining the character of their own activities. Informed critics of education today see evidence that the concept of the early devotees of universal education as the founda-

tion of an ever more stable society and satisfying personal life has not proven to be pragmatically valid. These attitudes are especially evident among the trustees of our colleges and universities. There is among our people generally, however, an unformed and unarticulated awareness of this fact and consequently they have an interest in initiating a basic re-evaluation of the purposes of education. This public concern generally with the character and quality of education provides one reason to hope that today reform can be achieved. Intelligent and socially conscious leaders saw reforms which held rich promise in the thirties and forties wither and die in the fifties and sixties. These same plans may now succeed.

Second, if the dissatisfaction with the personal rewards and the civic benefits of higher education were limited to its patrons and the public generally, the prospects for reform might be no more promising now than they were several decades ago. The virtually autonomous control of internal policy by the members of the teaching profession itself could impede if not completely stop any externally proposed changes. Now, however, the counter forces within the community of learning that emasculated earlier efforts to create a strong general education program have been considerably enfeebled. Then only a relatively small even though distinguished coterie of faculty members and administrators as at Chicago and Harvard vigorously advocated fundamental curricular reconstruction. Many others, however, especially those in positions of decisive influence over the welfare of the younger members of the profession, tenured full professors and department heads, overtly or covertly opposed attempts to remodel the course offerings for nonmajor students. This balance of power has now begun to show signs of shifting.

Many of the younger members of the teaching guild as well as some senior eminent leaders in the several branches of learning now see the need for change. Some vigorously advocate reforms and are willing to risk their professional reputations and status to achieve them. This is not to say that specific alteration in the purposes, content, and methodology of undergraduate instruction have as yet been precisely conceived, much less inaugurated, in the

majority of colleges and universities. Yet, an increasing number of faculty members acknowledge the need for a complete re-evaluation of the goals, programs, and outcomes of higher education. Demands by socially conscious members of the profession for a searching re-examination of the ends and means of higher education and an evaluation of its products in terms of the needs of men today seem destined to lead to basic reform. This change in attitude among the members of the house of learning justifies the prediction that the widespread discussions of general education that earlier turned out to be little more than exercises in rhetoric resulting in no lasting structural or functional changes may now presage significant renewal.

Third, another influential factor in the present situation favoring change did not exist even a few years ago. This new force which has altered faculty attitudes toward experimentation and innovation has little or nothing to do with education. Boldly stated, the present willingness to consider shifts in the conventional way of doing things flows from the lack of jobs in the academic labor market. The swift increase in enrollments in colleges and universities that began with the return of veterans in 1946 continued unabated for almost a quarter century. In the academic year 1939-40 before the male undergraduate students and a considerable number of women as well were drawn from campuses into military or other war-related activities, the resident degree-credit enrollments reached a peak of 1,494,203. By the year 1949-50, when most G.I.'s had left the service with war-related benefits, this figure had risen to 2,659,021.[9] These rapidly accelerating enrollments resulting from the postponement of their higher education by service men were further increased a few years later by their tendency to have more children per family than was characteristic of the preceding depression years. Growth in the economy generally and the rise in average individual income provided the additional resources required to offset the cost of more formal schooling for more members of the family. These and other factors in our national life caused an unprecedented increase in the college-going population. By 1976, it is estimated that the undergraduate enrollment will have risen to 8,824,000.[10]

Since preparation for a college or university teaching position customarily requires the aspirant to earn the Ph.D. degree, a process often extending over a decade or more beyond high school, teachers were in short supply from the mid-forties to the mid-sixties. This demand for additional teachers was compounded by new opportunities for holders of the doctor's degree in industry and government caused first by the war and later by the national concern which followed the Russian launching of Sputnik in October 1957. Hence, some of those who earned advanced degrees especially in the sciences who would normally have gone into teaching entered other occupations.

For the purposes of this discussion, no extended treatment is needed of the factors which caused the reversal in the past several years of the employment situation in the teaching profession. An earlier drop in the birth rate with a consequent shrinkage in the pool of youth seeking higher education, disaffection and disillusionment among young people with its character and benefits, and latterly the tightening of family budgets resulting from the economic recession all combined until the fall of 1975 to reduce the percentage of young people continuing their education beyond high school.

The effect of these various factors on the economy of higher education has differed from institution to institution. Those with a national reputation for excellence with a steady backlog of qualified applicants were able to recruit as many students as they could or wished to accommodate. The majority of colleges and universities, however, especially those whose enrollments soared over the past two decades, have until 1975 lost students, and many continue to do so. A good number have had to reduce their staffs and nearly a hundred have in fact closed their doors, thus further swelling the company of teachers seeking employment. Since under the rules of tenure the senior members of the faculty enjoy preferred status, those most severely disadvantaged by the shrinkage in student enrollments have been the newcomers to the campus.

In view of the swift social, economic, population, and attitudinal changes affecting the enterprise of higher education in

recent years, predictions are hazardous. Factors already fixed, however, such as the size of the reservoir of college-going youth for the next twenty years, justify the forecast that unless new types of services are offered for a more varied student population, the opportunities for employment in the profession will be limited largely to openings resulting from deaths, retirements, and shifts to other occupations.

The shortage of jobs is regrettable because the present availability of additional teachers could correct some long standing instructional deficiences. In fact, the reason for discussing this employment situation at some length is that the adoption of the type of general education program described in the foregoing pages would require the services of more, not fewer, faculty members. In such courses individual contact between teacher and student with free discussion of problems would require more experienced teachers. It is proper to observe parenthetically that if the average undergraduate student were to receive the type of individualized higher education that the exigencies of our times require, few, if any faculty members would have had to be released. The Contemporary Civilization course at Columbia College serving several hundred students each year has from the beginning been, and is today, divided into classes of not more than twenty-five students thus enabling them to participate in the kind of personal discussions which are impossible in the large lecture sections so common in other large universities. Indeed, the complement of teachers, especially in the universities where large classes often predominate in the elementary courses, would have to be considerably expanded under the Columbia College type of class organization.

Fourth, since the kind of general education required to serve the needs of an enlightened citizenry capable of reaching reasonable decisions on the problems of personal and public life requires classes of modest size, it is proper to observe that the present disbalance in curriculum offerings in undergraduate colleges or divisions of universities demands readjustment. The instruction so abundantly available at highly specialized, advanced levels for the few students preparing for further education in a graduate or

professional school, and which in fact often duplicates the course offerings provided in the latter, could be drastically reduced. The unit cost of instruction in these advanced courses typically averages two or three times the cost of elementary courses into which masses of students are corralled. The whole corpus of instructional offerings normally pursued by freshmen and sophomores who do not intend to major in the various departments demands reassessment. Such a reappraisal ought not only consider the appropriateness of the various units of instruction. It should also compare the relatively limited per capita proportion of the total institutional resources devoted to the general education of the whole student body compared to the expenditures for the few intending to follow careers within the teaching profession, both of which types pay essentially similar fees. A searching assessment of present instructional practices and appropriate curriculum reconstruction could lead to the shifting of teachers from one kind of course to another. Such changes in teaching responsibilities could increase, not decrease, the demand for teachers and could conceivably lower the average unit cost of instruction.

The relevance of these observations on conditions in the job market lies in the fact that the present lack of jobs among those who have already earned advanced degrees has profoundly affected their willingness to become involved in instructional innovation. Consequently, curricular reforms disregarded or discountenanced in the forties could now be expected to engage the interest of younger members of the profession. In fact, some administrators have stated to the author in direct answer to a question on this subject that many faculty members today are eager to give favorable thought to a redesigning of the curriculum. Moreover, they believe that such replanning ought to begin with the assumption that elementary instruction designed to lay down the foundation for later specialized training for a lifetime occupation in the academy or one of the other learned professions, whatever other merits may legitimately be claimed for it, is not suited to the needs of other students. Today more are willing to agree that a standard elementary course in physics, for example, essential for

the youth who intends, and has the ability, to become a research physicist, chemist, or biologist, may be quite unsuited to the needs of even an A-grade undergraduate who intends to become a social worker or a journalist.

Those who have recently entered college teaching, or wish to do so, now accept Conant's assertion some years ago that the nonmajor student ought to have a different introduction to science which would emphasize the nature and methodology of scientific investigation, the history of its successes and failures, the epistemological validity of its findings, and most importantly the impact of science and technology on the human condition. A growing percentage even accept his view that a general course embodying these goals taken by future science majors would make them, too, more conscious of the pressing social problems conditioned if not caused by developments in science. Similar agreement has been reached by members of faculties concerned with introductoy courses in the other divisons of knowledge. The demand for teachers of *general* introductory courses would increase if these conceps were accepted in the various departments.

A second misconception prevailed some years ago and to a degree continues today concerning the kind of instruction required for the nonmajor student which, if corrected, would lead to an expansion rather than a shrinkage of staffs. In recent years, in some of the universities attended by twenty or thirty thousand students elementary classes have frequently been attended by several hundred students. The type of stimulating intellectual give and take between a teacher and students of varying degrees of ability and previous education was accordingly reduced to a privational minimum. Even where the differences in the obectives between general undergraduate courses for nonmajors and other instruction for future specialists was recognized, it has been contended that beginning courses in the various disciplines largely attended by nonmajors could be effectively taught in large groups. The author is aware of the various researches the results of which show no advantage in the small class. It is his opinion, however, that the evaluating instruments fail to measure some of the most important intellectual outcomes of more individualized instruction.

If class structures were changed and the methodology of teaching so altered as to put all general beginning courses in charge of a teacher prepared especially to take advantage of the educationl benefits made possible by classes limited to twenty or twenty-five students the quality of undergraduate education would significantly rise. Students' intellectual skills other than those involved in the sheer acquisition and recall of facts could be cultivated. The capacity for critical thinking and the habit of relating a given body of fact or theory to the larger corpus of knowledge as well as to related life situations would be enhanced. These latter goals must be central in any adequate program of general education that is to avoid the justified charge of superficiality common among critics of the earlier efforts.

Many institutions are now overstaffed only in terms of the presently inverted sense of the relative importance of various types and levels of instruction. Those established members of the profession who have a real concern for the quality of undergraduate education and a compassionate regard for dedicated and able younger scholars will be moved thoughfully to design a more suitable general education than is now typically available in which more not fewer teachers would be needed. That a significant number seem to have become aware of these opportunities and responsibilities provides additional hope that the fruitless effort to reform undergraduate instruction several decades ago may now succeed.

Student Influence on Curriculum and Teaching

Fourth, as was intimated earlier, the attitudes and the activities of students may well play a more decisive role in the reconstruction of the college curriculum than they did in the forties and fifties. A number of studies by reputable investigators support the casual observation that students have in the past decade become critical of the character and quality of much of the instruction provided at the undergraduate level. Unfortunately their efforts at reform in the sixties were frustrated by two types of student action. First, the activities of well-intentioned youth were confused in the public

mind with the reprehensible disruptions of some of their ill-guided classmates. The sincere efforts of thoughtful and well-behaved youth seeking to cause the academic establishment to turn its attention from the transmission of knowledge to the broader responsibility of preparing young people to understand and to deal with the urgent problems of living became confused in the public mind with the violent acts of a few young people who were concerned with such social issues as the war in Vietnam, racial inequities, and the treatment of the poor.

Regardless of the merits of the latter causes the means of their advocates in achieving social change were often the very antithesis of the conventional modes of reasonable discussion. The rational solution of social problems which the intellectual community was presumed to encourage was in many academic communities abandoned. The activities of these thoughtless students which often violated the very rights of freedom of opinion and personal involvement at the basis of democratic social action were regrettably sometimes encouraged or at least disregarded by their teachers.

In this democracy, even today the suppression of freedom of speech characteristic of dictatorships has been imposed on some campuses by posturing liberals who by physical acts, by shouting, by refusing to participate in rational discussion, violate the very principles on which the defenders of academic freedom must rest their case.

Fortunately, a much larger group of students has become more interested in using the apparatus of learning in an orderly resolution of social problems by making education more relevant to the pressing issues of the day. Earlier conceptions of relevance often shallow and motivated by an impatient demand for the instantaneous solution of problems, some of which have perplexed the best minds for centuries have been altered. Units of instruction like those related to the ancient search for freedom, justice, and the dignity of human life that were brushed aside in favor of immediate action on social issues are now thoughtfully considered. Epoch-making achievements like Magna Carta, and the American political

philosophies of the late eigtheenth century, which were rejected by radical activists as not relevant to their own lives and in fact obstructive of their proposed social reforms, are now studiously analyzed. These earlier attitudes and activities, destructive of freedom of teaching aroused the opposition of the general public, and in the end the opprobrium of the academic establishment. Unfortunately, then, the political activities of some students became confused with reforms of education which deserved the serious consideration of the profession as well as the public generally.

Unfortunately the incisive and valid student criticism of much vacuous instruction relevant primarily to the intellectual interests of the members of the professoriate was skillfully classified by the vested interests with the shortsighted and hollow animadversions of the thoughtless few. The violent activities of the latter nullified those of the sober students seeking legitimate reform by diverting the attention and support of citizens away from needed re-evaluation of undergraduate education. Nevertheless, falling enrollments and a continuing demand among students for a voice in the determination of the learning experiences they will have to have to help them understand their own personal problems and the larger social issues of our age continue to cause academic bodies to re-evaluate their policies. The interests of students today which contrast sharply with the indifference or misguided attacks of students in earlier days augur well for the success of efforts to re-establish programs of general education.

It was stated earlier that the general education movement of the thirties and forties was a failure. That statement is valid only when it is applied to the entire company of colleges and universities. The most vital, well-organized, comprehensive programs in general studies at the most prestigious institutions did to be sure gradually disintegrate or lose their vitality. The concept of a corpus of general courses in the several major divisions of knowledge which institutions required all students to pursue, no longer dominates the undergraduate curriculum. Yet, if for no other reason than that the representatives of the various departments wanted all students to have some knowledge of the content and

methodologies of the various disciplines some such courses have been preserved. To achieve this broad goal, however, faculties have widely re-established the earlier distribution system under which each student is required to elect a given number of hours of instruction in each of the major divisions of modern knowledge — the natural sciences, the social sciences, and the humanities.

Some of the most radically innovative institutions, however, have swung completely away from the earlier concept that a body of general knowledge and a distinctive set of intellectual methodologies existed in the several subject-matter areas which all educated persons ought to comprehend and be able to use in living an enlightened life. In one such institution, for example, where the individualization of educational goals was confused with curricular license, academic credit has been given for a wide variety of nonformal experiences such as the observations made on young children during baby-sitting activities. When one student at this college was asked what *specifically* he was required to do to get his degree, he replied, "Not a damned thing." It is difficult to see how in such an anarchic atmosphere the educational concept of preparation for the common responsibilities of life in a free, self-governing society could have any influence on the content of instruction or the life style of the campus. Fortunately, this experience of pseudo-freedom in the house of learning is passing.

The argument that there is a certain body of fact and theory indispensable in the thoughtful conduct of public and private life is gaining support among students and faculties, although many students still reject the idea of a common intellectual experience for all. Yet, a philosophical residue remains from the dedicated efforts of those who envisioned and constructed the programs of general education in the earlier decades of this century. Many interdisciplinary courses cutting acros the boundaries of several fields have persisted or been reanimated. Vestiges of the Great Books program developed under the leadership of Robert M. Hutchins at the University of Chicago still remain not only there but at other colleges. Moreover, even in faculties where a required common core of general studies does not exsit, as for example

at Kenyon College, instructional units embracing the subject matter of more than a single discipline continue to have their vigorous proponents and are chosen by students under an elective system. One of the most difficult practical problems facing those who believe that there is a certain body of knowledge which all enlightened citizens must possess is that of engaging the thought and the energies of serious students in the designing of such an indispensable program of general education, thus ensuring their subsequent support.

Growing Interest in the Profession

As far as faculties are concerned, the most encouraging indication of a revived interest in general education among members of the profession appears in the attitude of the natural scientists. It is not unfair to say that in the thirties and forties many scientists had little positive interest in the efforts of Harvard's president, James B. Conant, himself a distinguished scientist, in establishing courses of study designed to serve the needs of the average educated citizen not headed for a scientific career. Nevertheless, with the help of chosen colleagues, units of instruction were developed overarching several scientific disciplines such as physics, chemistry, and geology. Instead of systematically leading the student from the most elementary facts to the advanced levels of theoretical generalization in a single subject such as chemistry, these professors designed courses which interrelated the subject matter and the investigative activities of two or more disciplines.

Many more scientists now than in the 1940s are convinced that a general course in science must also deal with *value* questions which an earlier school of thought intransigently excluded from the domain of science. This broader conception of the proper purposes of instruction in science, and in other disciplines as well, provides tangible evidence of the growing concern in the academic community about the interrelationship of the humanistic goals of higher education with those of the scientific and other disciplines. One of the most thoughtfully conceived and convincingly described programs dealing with the interrelationships between technology

and human values has been developed by several members of the faculty of engineering at Stanford University, a brief description of which will be found in Chapter VII. Viewing this overstepping of intellectual borders one can predict that some of the most dramatic and fruitful developments in higher education will soon emerge from collaboration between scientists concerned with the human consequences of their work and humanistic scholars interested in the ancient questions of the ultimate meaning of life. In fact this type of intellectual miscegenation has already begun.

The Crucial Role of Scientists

Evidences of scientists' changing attitudes concerning the education of the general public with respect to the meaning of science and of its impact along with technology on life generally appear with increasing frequency in the professional literature and in less technical statements addressed to the public at large. Barry Commoner, for example, an eminent biologist rejecting the view that the methods and substance of science are so esoteric that the average citizen cannot be entrusted with the responsibility of making decisions on public policy involving science, says:

> Professor Immanuel Mesthene of Harvard proposes that in order to deal with modern technology we need a new political ethos.
>
> To be able to vote intelligently and participate in democracy, the citizen must understand various relationships between nature and science. To talk about superhighways versus rapid transit, he must know about smog. To talk about the Nuclear Test Ban Treaty, he must know about strontium 90 and iodine 131. To talk about bond issues for sewage, he must know about the nitrogen cycle. But most citizens lack this understanding. Therefore, Mesthene suggests that we need to take the control of policies from the public and turn it over to specialists, experts who do understand the technical background of such modern problems.
>
> I reject this view. One reason is that it is antidemocratic. A second reason is that there is a better alternative. If the public is uninformed on technical matters it is only because scientists have not fulfilled their obligation to inform the public. When armed with technical information, the public is perfectly competent to make political decisions.

Some scientists take the position that there is no relationship between science and society. They believe that science exists in and of itself, as

a kind of religion; that it has its own self-justification, as a personal, intellectual pursuit."

Moreover, Commoner unmistakably aligns himself with those who believe that scientists no less than scholars in the other fields of knowledge have a moral responsibility to instruct the man in the street about the human consequences of various uses of knowledge. In the same paper, from which the foregoing quote was selected he remarks:

> The issues of nuclear war, insecticides, public transportation, and sewage disposal are not just scientific issues; they are moral, social, and economic issues. They should be decided by the public as a whole. But the public cannot exercise its conscience on these matters unless it knows the scientific facts. In the old days, morality worked on the basis of simple Newtonian mechanics. That is, hitting somebody with a rock would hurt him so much—so the moral issue of throwing rocks at your neighbor was clear. The hurt that rock-throwing can cause is obvious; no scientist is needed to explain it. But scientists who understand the subtle laws of ecology are needed to tell people how using insecticides on Mississippi Valley farms will kill the catfish and wipe out the Cajun fishing industry in Louisiana. The issues resulting from the failures of science and technology are social, political, and moral ones; the scientist's job is to get the relevant information before the public, so that a democratic decision can be made.
>
> There is a relation between science and society. The unique responsibility of a scientist is not to determine how his knowledge shall be used, because that determination does not involve his unique capabilities as a scientist. It involves only his moral position as a person. He ought to acknowledge that every person has the same right to a moral position as he does.
>
> I believe that the scientist has a unique responsibility. He is the custodian of the knowledge that everyone needs to exercise his own conscience. If the scientist doesn't get the information to the public, the public is being cut off from the exercise of its morality.

When the public is informed, action comes quickly. When, much to everybody's surprise, 80 Senators voted to approve the Nuclear Test Ban Treaty, a careful analysis was made of the factors influencing the vote. The study found that the Senators had received a lot of mail from mothers who feared the dangers of fallout. What influenced the Senators most was that the mothers who wrote the letters knew how to spell "strontium 90." They knew the facts, and the Senators feared facing not simply enraged women, but informed enraged women. The force behind this informed

public was education by the scientists of the community. After all, it was the scientists who first knew how to spell "strontium 90."[14]

No advocate of a revival of a more effective general education could present a more persuasive argument than that of Professor Commoner, but a growing number share his deep convictions. René Dubos, also an internationally renowned biologist, contends that scientists *alone* cannot control or manage the results of their work. In *Reason Awake* he says:

> The increasing integration of scientific activities into the social order will make it necessary to constitutionalize science. (Harvey Wheeler, 1968). There was no point in legislating the activities of scientists until recent times, because scientific advances occurred infrequently and without conscious anticipation of their long-range social effects. But the situation is now different in two ways. One is that the systematic production of socially meaningful discoveries, first anticipated in Bacon's imaginary *New Atlantis*, has now become a reality. The other is that, contrary to what was believed until the last century, the advancement of knowledge does not automatically improve the human condition. The events of the past few decades have shown that it is dangerous for society to allow scientists to manage the consequences of their work.[15]

These statements of eminent scholars with a deep-seated social conscience ought to convince all educators that if nonscientists are to play a decisive part in determining which scientific activities are to be supported and how their results are to be used by mankind, the voting citizen must know what science really is and does, and what are the probable if not certain human consequences of its discoveries and related technological applications. These and hundreds of opinions of other thoughtful persons as well as expressions of uncertainty among our people generally about the nature and purpose of human existence reveal the need to re-examine the purposes and practices of education to decide whether as presently constituted it is equipped to prepare this and succeeding generations to deal with the basic problems of life and to enhance the well-being of the world's rapidly multiplying inhabitants.

Anyone who shares these doubts must agree that it is a matter of the utmost urgency to reactivate a dormant interest in general education. If, however, a second major effort to this end is to succeed and urgently needed reforms particularly in undergraduate

education are to be achieved, an entirely new approach must be made to the reorganization of the curriculum, the content of instruction, the methodology of teaching, and the evaluation of results. It bears repeating that the earlier efforts to construct a defensible general education began with specialists cataloguing the types of knowledge and the various intellectual skills an educated person ought to have acquired. To a considerable extent the large units of instruction in the form of general courses were constructed of small pieces of fact and theory selected from related disciplines. Because of the gaps between the specialized spheres of scholarship these bodies of knowledge were only superficially related in the typical courses in the several disciplines.

It was assumed that these gaps would be closed by bringing various units of knowledge into meaningful interrelationships so that learning would again be made pertinent to the complex human problems that were not coterminous with the discrete analytical boundaries of the scholarly investigator. This reunion of divorced fact and theory regrettably seldom occurred even in the minds of those who taught to say nothing of those who learned. It should have been obvious even to the uninitiated that merely assembling a few weeks of instruction in sociology, political science, and psychology taught by specialists in one of these fields who forthrightly admitted their ignorance of the other two would not result in students' learning to integrate the elements of modern scholarship, nor would such disjointed intellectual exercises bring the resulting fragments of knowledge to bear on the complex problems of life which never conform to the neat factual categories of academic specialization.

An overview of the conditions of life in academic communities, in the surrounding society, and in the world at large reveals the need for basic educational reform. If, as most thoughtful citizens continue to believe, education of the *right kind* is the one social institution which can prepare human beings to deal effectively with the perplexing problems of the day, then the priority item on the agenda of the profession must be the development of a fuller, more relevant general education for all our people. Edu-

cators cannot alone, nor should they attempt to, reshape the values and the conditions of life in our society. They cannot, however, morally refrain from re-examining the effectiveness of present educational practices and determining what changes need to be made to quote Whitehead to restore order and reverence to our culture.

J. Bronowski, *The Ascent of Man*, 1973.

1. Robert L. Heilbroner, *An Inquiry into the Human Prospect* (New York: W. W. Norton Co., 1974), 15.

2. Ibid., 16.

3. Ibid., 17.

4. Sydney Harris, *Greensboro Daily News*, Dec. 20, 1975.

5. Alfred North Whitehead, *Adventures of Ideas* (New York: Macmillan Co., 1933), 125-26.

6. Harold Taylor, *How to Change Colleges*: Notes on Radical Reform (New York: Holt, Rinehart and Winston, 1971), 83-84.

7. E. Alden Dunham, *Colleges of the Forgotten Americans*: A Profile of State Colleges and Regional Universities (New York: McGraw-Hill Book Co., 1969), 163.

8. Barnaby C. Kenney, "The Ph.D. in the Humanities," *The Graduate Journal*, VIII (1971), 424.

9. W. Vance Grant and C. George Lind, *Digest of Educational Statistics 1974*, U.S. Department of Health, Education and Welfare, Education Division, National Center for Education Statistics (Washington: Government Printing Office, 1975), 7.

10. Ibid., 196.

11. Barry Commoner, "A Biologist on the Ecological Crisis," in *The Social Responsibility of the Scientist* (Martin Brown, ed., New York: Free Press, 1971), 179.

12. Ibid., 181, 182.

13. René Dubos, *Reason Awake* (New York: Columbia University Press, 1970), 110.

V. A NEW FUNCTION FOR GRADUATE SCHOOLS

> One of the disquieting signs of our time is an increasing alienation, lack of communication, lack of rapport among people. The impersonality of our large universities is well known. Different residential arrangements and other managerial schemes may help, but nothing could have as much impact on our college campuses as a faculty really concerned about the personal lives of students and the role of higher education in their development. And here, again, we need a different breed of faculty, a faculty who are in tune with the younger generation. — E. Alden Dunham

The decline of liberal education in this country coextends almost exactly with the rise of the graduate school, and this relationship also determines how difficult it will be to establish a suitable general education in the undergraduate colleges. A review of the ascendency of the graduate school will show unmistakably that this branch of higher education has had a direct, profound, and, on balance, a detrimental effect on the colleges, the institutions established by society to provide liberal educaton for all students regardless of their intellectual interests or vocational goals. It will also show that during the expansion of graduate education the colleges began to surrender their independence. Gradually the colleges relinquished the mission which for centuries in British and later in American higher education had been their heritage and their grandeur, to wit, the function of instructing young people in the Western European intellectual and spiritual traditions. Such a review will also reveal that with the rise of the graduate school liberal education became oriented toward new goals alien to its nature.

Under the spreading influence of graduate education, the liberal arts colleges shifted their emphasis from teaching to research; from general education to specialized instruction; from learning concerned with the key ideas of Western culture to instruction composed of

the latest findings in ever-narrower areas of scholarly investigation; from the concern with the complete development of mind and character which Milton believed fitted "a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war" to the cultivation of the professional skills and the restricted subject matter of the various fields of intellectual endeavor — in brief, from the dissemination to the creation of knowledge.

The present shortcomings of liberal arts colleges, for many of which they are not culpable, cannot be corrected until some of the foregoing developements are reversed. Such a reversal ought to begin with a restatement of the historical fact that the very educational leaders who were responsible for the establishment of the earliest graduate institutions recognized that *the purposes of advanced graduate study and those of undergraduate liberal education were incompatible and to some degree mutually detrimental.*

The builders of the American university foresaw that making research and the training of scholars a central activity in the enterprise of higher education would do what it has now actually done, that is, confuse the purposes of the colleges and misdirect their efforts. As these pioneers foresaw, the supremacy of graduate education with its emphasis on research and the transmission of specialized knowledge has transformed the goals and distorted the programs of the American academic community. The mores, the administrative organization, the rewards of academic life, the very tissue of the academic organism, have been so altered that liberal arts colleges have ceased to have a distinctive existence or mission. Worse, even if they chose to do so, they are no longer free to determine the policies governing the education of their own students.

The Separation of Graduate and Undergraduate Teaching

Leading academic figures of the late nineteenth century, foreseeing the incompatibility of graduate and undergraduate education, firmly advocated their separation. Charles W. Eliot, later paradoxically responsibile for placing the whole of undergraduate

instruction at Harvard under the dominion of the graduate faculty, in the early period of his distinguished forty-year presidency completely rejected the research function as a primary obligation of universities, to say nothing of colleges of liberal arts. At the outset of his administration Eliot gave scant regard to graduate work. In his inaugural address, he firmly asserted the primacy of undergraduate teaching. On that occasion he stated flatly that "the prime business of American professors in this generation must be regular and assiduous classroom teaching." Even those who, unlike Eliot, saw the necessity of firmly establishing research in American institutions of higher education recognized the fundamental difference between investigative activities and the teaching of undergraduates. Daniel Coit Gilman, for example, the first president of Johns Hopkins University, earnestly tried to persuade the trustees of that institution not to establish an undergraduate division but, on the contrary, to limit its services to high quality instruction for promising research specialists.

Originally, Gilman's distinguished contemporaries, Charles W. Eliot, William Rainey Harper at the University of Chicago, and G. Stanley Hall at Clark University, accepted his separation of undergraduate and graduate work. Like Gilman, all but Eliot, who already had a lusty college, objected in principle to having undergraduate divisions attached to the universities over which they presided. Nevertheless, the unremitting efforts of those who idealized German higher education caused research activities to be admitted as appropriate activities of universities. For some years, however, the leaders of higher education continued to consider such activities secondary in importance to undergraduate teaching.

The Growing Dominance of the University

The earlier characteristics of academic life failed to survive the nineteenth century. Within several decades there occurred one of the most radical revolutions ever to take place in an ancient institution whose origins were deeply rooted in the soil of Western culture. After the turn of the century the principal pursuits of faculty members in American universities were increasingly de-

claced to be the prosecution of factual research, the training of apprentices in the techniques of investigation, and teaching each succeeding generation of students the advanced knowledge needed to join the corps of research scholars. In the large universities at least, these functions came to enjoy a priority in substantially the foregoing order, with the teaching of undergraduates relegated to the status of Cinderella before she met the prince.

The liberal arts college; a handmaid

The basic shift in emphasis in American higher education from teaching to research which occurred in a few prestige institutions might never have become universal had it not been for certain organizational and administrative innovations at Harvard University near the end of the nineteenth century. In the years between the modest beginnings of graduate instruction around the 1860s and the year 1890, the position of graduate work in the entire enterprise of higher education became confused.

Reversing himself completely in 1890, Eliot advanced a new pattern of university organization. His administrative revisions in effect placed the control of curriculum policies and practices and the teaching procedures of the college in the hands of a graduate faculty whose interests lay increasingly in research and in the closely allied activity of giving advanced instruction. The following expression of the philosophy underlying the reorganization of 1890 in which Eliot emphasizes the similarity and the continuity of undergraduate and graduate instruction, reveals the radical change in his views since the first years of his presidency:

> . . . in any particular course there is absolute confusion between the college and university student; and I think this must be the case in all the universities here represented [Association of American Universities]. . . . I had occasion to point out not long ago that in the seminary courses, so called, at Harvard, one-sixth of all the choices were by undergraduates in Harvard College . . . there is the greatest possible mixture of what we call college men and university men in all our courses of instruction. . . .[1]

In 1890, then, Eliot's proposal made the graduate and the undergraduate professors of Harvard one corporate body, known as the Faculty of Arts and Sciences.

Within two decades critical observers saw the profound significance of this reorganization for the future of college education. As the graduate faculty rose to a position of complete dominance at Harvard and the doctorate became the *sine qua non* of academic preferment, William James, one of America's most brilliant scholars, in an article entitled "The Ph.D. Octopus," foretold the evils that have now been visited on the colleges because of their surrender to forces foreign to their traditional purposes. In typically lucid language he expressed the thoughts repeated since that time by many other men of vision:

> First of all, is not our growing tendency to appoint no instructors who are not also doctors an instance of pure sham? Will any one pretend for a moment that the doctor's degree is a guarantee that its possessor will be successful as a teacher? Notoriously his moral, social and personal characteristics may utterly disqualify him for success in the classroom; and of these characteristics his doctor's examination is unable to take any account whatever. . . .
>
> The truth is that the Doctor-Monopoly in teaching, which is becoming so rooted an American custom, can show no serious grounds whatsoever for itself in reason. As it actually prevails and grows in vogue among us, it is due to childish motives exclusively. In reality it is but a sham, a bauble, a dodge, whereby to decorate the catalogues of schools and colleges.[2]

These criticisms were no transient phenomenon, for as years passed, the situation grew worse rather than better. One of America's most celebrated historians, James Harvey Robinson, a person no one could accuse of being opposed in principle to research, in 1923 wrote a penetrating treatise on education entitled *The Humanizing of Knowledge*. In this publication according to Glenn A. Reed, Robinson argued for a new kind of college teacher who could assist students in integrating knowledge.

> [Robinson] . . . took up the cry to humanize rather than fragmentize knowledge. He insisted that a new type of teacher and scholar was needed who would interpret and reveal knowledge as well as extend it. The fragmentation of knowledge, said Robinson, may have served a significant purpose in research, but it formed a barrier to education: "Specialization, so essential in research, is putting us on the wrong track in education." Robinson believed that the humanizing of knowledge involved the process of divesting it of its abstract and professional character.

Separation and departmentalization may be important to research; they act as barriers to the diffusion of knowledge.[3]

And it can be properly added today, these barriers prevented the development of general education through the forties and fifties.

College Teaching: The Professor's Extracurricular Activity

The relationship which exists between the graduate schools and the colleges is at the basis of many of the deficiencies of contemporary undergraduate education. The domination of the graduate schools has deprived colleges of their intellectual heritage and of their unique teaching function. Small institutions which rightly have never aspired to university status have been forced by false conceptions and misdirected professional ambitions, often with a sad wastage of their limited means, to adopt practices in direct conflict with their reasons for being.

Under existing circumstances, it is not surprising that many faculty members, even in the small independent liberal arts colleges, now occupy themselves with so-called research activities often resulting in nothing which, by any stretch of the imagination, could be called original contributions to knowledge. Moreover, the knowledgeable and ambitious college teacher commonly concentrates his energies, not on undergraduate instruction for the run of college students, but rather on the teaching of departmental majors and on research. These activities, he observes, lead to promotion and, with good fortune, to employment in a larger and better-paying institution, which may further reduce his undergraduate teaching and enhance his opportunities for research.

Although the graduate faculties are largely responsible for the shortage of *properly prepared* college teachers, that is not their sole adverse effect on liberal arts colleges. In a measure the graduate schools deny society the services which the colleges ought to perform by transforming them from institutions for general education into agencies for the initial vocational education of scholars. They produce college teachers prepared not primarily for their chosen or destined work, but rather for research activities of a

limited character. Through the control of the political machinery in the academic community these real or ostensible research scholars determine the policies governing promotions and salaries. By their arrogation of the authority to define the conditions of professional advancement in terms of research and publication they divert the energies of college teachers from their proper employments.

More importantly, in relation to the substance of this treatise, they have consistently opposed, often with shocking success, the attempts of liberal arts colleges to resume the time-honored function of providing a *general education* for youth regardless of their vocational objectives. But, most important, they have splintered the corporate body which once was the liberal arts college into small and often completely unrelated departmental units. They have thus transformed the unified college curriculum into an agglomeration of subjects typically assembled in meaningless patterns according to the whims of students or more commonly their departmentally loyal advisors.

Can the Present Inadequacies Be Corrected?

Only drastic reforms in graduate education will permit the much-needed restoration of general education. Before any substantial reconstruction can occur, the purposes of graduate education must be clarified and revised. Until graduate faculties subject themselves to a sincere self-examination and consciously determine what the social conditions of the day require of them, no melioration of the present unhappy state of affairs can be expected. Until these bodies redesign their programs to achieve several different but equally important objectives the liberal arts colleges will not be able once again to fulfill their crucial functions. Nor, it may be added, will high-level imaginative research be as common as the national welfare requires. It is urgently necessary that the graduate schools recognize the increasing demand for qualified college teachers, especially those who must design and give an adequate general education for the needs of today.

If graduate schools were to make necessary changes in their policies and practices, they could considerably ease a situation

which otherwise will severely debilitate American life. The achievement of this desirable social objective will depend upon the willingness of graduate schools to take the following actions:

1. Provide programs for intending college teachers that differ in certain basic respects from those for other graduate students who expect to make research their primary work *and have a demonstrated aptitude for and interest therein.*

2. Broaden the education of intending college teachers throughout the undergraduate and graduate years. Since a large part of the instruction which faculty members in liberal arts colleges give consists of general education, the training of such teachers will be more effective if it extends over several departments or disciplines.

3. Establish the meaning and character of the research requirements for the doctor's degree with more realism and candor than have characterized past treatments of this crucial subject.

4. Require intending college teachers to attend a seminar, preferably in the last year in graduate school, to gain an understanding of the whole enterprise of higher education and the place of their own work in it. Prospective teachers in connection with this seminar should also serve an apprenticeship in a college classroom under the supervision of an accomplished teacher in their field *before* assuming sole responsibility for instruction.

Anyone who has done research and also taught undergraduate students knows that, though a few persons can do both with equal effectiveness, the two activities require different skills. In the first place, the former demands primarily private and the latter normally public application. The personality traits required in each, therefore, differ. Although some versatile human beings possess both to an adequate degree, these persons are uncommon. Nor does the claim that "good teachers are born" hold true. Individual abilities and tastes do exist. They account for the fact that accomplished investigators may not succeed as teachers of undergraduate students. Brilliant teachers of youth, on the contrary, often lack the interest or motivation to pursue basic research, and when forced to do so to gain professional recognition, more

often than not produce pedestrian results. The complements of knowledge, skills, and traits required in these two types of professional activities differ sufficiently to justify, indeed to necessitate different kinds of training. As Barnaby C. Keeney, once a graduate dean and now president of Claremont Graduate School, sees the matter of preparing college teachers for their specific professional duties:

> It is assumed by most graduate professors that they are splendid models of teaching and that their example is all they need to provide their students. Aside from the fact that many of them are not very good models, a model is not enough. Good teaching is not done by imitating someone. Good teaching is done by a careful and thoughful approach to a series of problems. Good teaching is really asking questions rather than reciting facts. Graduate students may have had good models of this behavior in college, but then again, they may not and their pleasant memories may have been obliterated by people who teach otherwise in graduate schools.
>
> It would be well, I think, for the graduate professors to give considerable attention to teaching, what it is for, and what people ought to do to get better at it. I do not mean that they should teach pedagogy. I mean that they should teach their subjects with some indication that they are aware that the people who are learning are learning because they are going to be teaching.[4]

1. *Differences in graduate programs*

The facts of psychology provide cogent argument for establishing somewhat different educational programs for research and for college teaching. Only a small number of persons possess the imagination and the boldness to think at highly creative levels, certainly far fewer than the number needed in college teaching. The intellectual operations of an Einstein, Toynbee, Bohr, Picasso, Oppenheimer, Frank Lloyd Wright, and Arthur Morgan differ so markedly in degree in the capacity for inventive conceptualization that their thinking virtually differs in kind from that of even other competent scholars.

Nearly a half century ago, a minority of distinguished research scholars in the various disciplines saw the harmful effects on both research and on college teaching of the failure of the graduate schools to clarify and particularize their functions. In the

early thirties a commission of the Mathematical Association of America, including some of the country's ablest mathematicians, examined the policies, processes, and products of graduate education in mathematics. Among other things this commission discovered that existing Ph.D. programs produced too few productive scholars. After reviewing the publications of those who had received the doctor's degree some years prior to the investigation, the commission concluded:

> . . . it is no apparent overstatement to assert that, under present conditions, at least 80 percent of those receiving the doctorate in mathematics will publish no useful research beyond their doctoral theses and closely associated results. The training for reasearch must therefore be justified for most candidates, if at all, on other grounds than their contributions to the advancement of mathematical research, as that term is customarily understood.[5]

These findings substantially duplicated those of Marcus W. Jernegan's study of the productivity of historians in which he found that "less than 25 percent of the doctors of philosophy in history are consistent producers."[6]

The primary concern here, however, is with the impact of present policies and practices in the graduate schools on the education of college teachers, particularily those who are destined to provide a suitable general education for the nonmajor student. In discussing the type of graduate education needed by such teachers, consideration of the uses to which knowledge is put in various types of educational programs is essential. When this is done three major ways of organizing and disseminating knowledge emerge. One concerns primarily the education of citizens generally, regardless of their occupations — the mass of college youth; a second, instruction for professional practice such as medicine or accounting; and a third, the research activities of scholars in the universities. Although these categories overlap to a degree they can be profitably separated in discussing the varying functions of knowledge in different types of education.

In 1926 Wilder D. Bancroft of Cornell University,[7] seeking a term to describe the knowledge in chemistry organized and communicated for the benefit of the first of the three foregoing groups,

employed the word *pandemic*. Etymologically, the choice was apt because it denotes the corpus of fact and theory which all educated citizens ought to possess even though they can pretend to no special knowledge in a given field such as chemistry or philosophy. This kind of learning has more recently been characterized by the concept of *general education*, that is, education broadly inclusive in scope and related to the usual business of life contrasted with the particular knowledge and activities of a vocation.

The acceptance of this classification of knowledge by those who have responsibility for determining the purposes, structure, and content of higher education would materially allay the wasting conflicts which now occur between the proponents of special and of general education, and between those concerned respectively with undergraduate and with graduate studies. Then the contending groups might agree that though all are equally important, these three kinds of instruction differ sufficiently to necessitate somewhat different types of professional education. Until the graduate enterprise undergoes the alterations implied by this division of labor, the purposes and the character of the various branches of our system of higher education will remain confused. Consequently their work in any one of the three will be less effective than it could be.

2. *Broader graduate education*

At present the education of college teachers, at least that part of it obtained in the graduate school, is not, as Milton would have it, "complete and generous." On the contrary, it is partial and niggardly. Among those who choose a teaching career early the narrowing of intellectual interests often begins in undergraduate days, or even in secondary school. The personal inclinations of students or, more commonly, the persuasions of representatives of their major disciplines, cause them to elect more and more instruction from a single or related department and less and less from the areas of knowledge remote from their speciality. When they begin graduate work the selection of courses outside of their specialty is constricted still further.

The youth who becomes interested in the science of living things will serve as an illustration of the process of creeping intellectual specialization. In high school he may realize for the first time that the courses which excite his interest are treated in biology. Exploring this comprehensive subject as a possible occupational field, he learns that the biological sciences are divided into two major branches, zoology and botany, and that the former attracts him more than the latter. But as he proceeds up the academic ladder he discovers that zoology, too, is subdivided into specialities. Consequently, when this prospective teacher of biology enters graduate school he limits his study to, say, invertebrate organisms. Later his interests are narrowed to bacteriology, then to the study of viruses. As he selects a research project for his dissertation, conventionally the principal requirement for the doctor's degree and hence for employment, this embryonic college teacher will probably be concerned with the behavior of a particular variety of virus under a limited set of controlled circumstances. Similar specialization commonly occurs in the other infinite divisions of modern learning. This pyramiding of education to a narrow point usually results in a corresponding shrinkage of intellectual interests because the student's and later the practitioner's time is necessarily restricted if he is to "keep up" in his chosen speciality. Through this virtually universal habit of expanding specialized offerings in the upper years, colleges have largely surrendered their heritage of providing liberal learning. Their traditional distinctiveness, it must constantly be remembered, has been the offering of broad education. Now because they have attempted to imitate the graduate school, they do not offer a suitably broad and basic emphasis even within a single field, much less in a proper program of general education.

Until the studies, the research experience, and the dissertation are such as to enable many more students to extend their graduate experience beyond the boundaries of a single discipline, colleges cannot hope to obtain the kind of teachers needed to design and offer essential programs of general education. A mere stringing of the beads of unrelated courses in the natural sciences, the social

sciences, or the humanities along a curriculum thread will, however, be little better preparation for the college teacher than the present piling up of blocks of specialized courses in a single discipline. What is required is instruction which causes the student to see the relationships between the subject matter of various disciplines and the relevancy of the whole to the problems of life.

3. *Research project for college teachers*

One of the principal obstacles to the development of a suitable graduate program for college teachers is the confusion about the meaning of the words "scholarship" and "research." If the term "research" is used restrictively to refer only to the type of investigation which results in an "original contribution to knowledge," then no one can pursue a life of scholarship except as he continuously engages in research.

The restoration of liberal learning demands that the meaning of scholarship and of research be so clarified that graduate programs for those preparing to devote their lives primarily to undergraduate teaching and to factual research respectively can be differentiated. A beginning could be made toward this end by agreeing that though all teachers must be scholars, they need not be engaged in original investigation.

Another procedure in advancing knowledge is concerned not with analysis, with the breaking up of phenomena into smaller and smaller constituent units, but rather with the reverse, with synthesis or the reassembling of facts into more comprehensive meaningful units. This process of conceptualization is a second and really the indispensable component of creative research. In speaking of the relative value of building new bodies of fact and designing new concepts James Bryant Conant says:

> Science advances not by the accumulation of new facts (a process which may even conceivably retard scientific progress) but by the continuous development of new and fruitful concepts.[8]

Conceptual and factual research must interact and support one another. To a degree any exploration into the realm of ideas involves both. But the insistence that each candidate contribute

a new factual building block to the edifice of knowledge has resulted in much inane intellectual labor and deception concerning the worth of his efforts. It also caused many college teachers to neglect the type of conceptual investigations in their own fields that would have kept them intellectually alive. By constant reading, by critically evaluating existing factual material, and by observing new conceptual meanings in the subject matter of their special fields they could have enriched and broadened their teaching of undergraduates.

Some years ago Robert M. MacIver addressed himself to the need for a new emphasis in research in the social sciences when he said:

> Today the materials for our building are better and more plentiful — and here we give grateful thanks to the quantitative workers. The bricks and the mortar, the steel and the lumber, are being prepared. The bricklayers and the hodmen, the masons and the carpenters, the riveters and all the rest are ready. Now we must pray that the architects also arrive. . . .[9]

This statement may appear to depreciate unnecessarily the factualist investigator. It does, however, highlight the need for those who can see meaning in, and generalize, the vast mass of fragmented knowledge. Such persons are needed to advance research, especially in the humanities and the social sciences where the idolatry of *Wissenschaft* has produced much trivial so-called "learned literature." But such persons are as much needed to revitalize the activities of the classroom by introducing students to the broader meanings and implications of the subject, and by cultivating the very processes of conceptualization required in the solution of many of life's problems.

Teachers could, therefore, be better prepared for their professional responsibilities through graduate programs which permitted broader, synthesizing research activities. In this sense all teachers will be scholars and investigators. All will be in touch with the advances in their fields, indeed more broadly so than at present because they will not be limited in their studies to a narrow subject. All will be capable of learned publication though the product of their creative thought may be quite different from the detailed and often fruitless reports which now inflate the pages of professional journals.

The college teacher, if he is to be continuously informed about the varied and significant developments in the sciences or the humanities which ought at the earliest possible moment to be put into circulation among citizens generally, must devote his time to reading and reflecting on the original findings of investigators. Scholarship in his case means knowing his subject broadly, not narrowly, and being able to see the relationships and the philosophical significance of new knowledge as it is produced.

No less intellectual stamina and competence are required in encompassing and ordering an ever-expanding body of knowledge than in investigating a minute feature of the physical or social world, or of a philosophical system. The arbitrary claim that greater intellectual ability is required in analysis than in synthesis is highly debatable. Much of the "original" factual research rewarded with the Ph.D. degree involves mechanical, pedestrian intellectual operations far below the level of those employed in philosophical synthesis of existing knowledge in new patterns of meaning. The conceptualizations involved in Einstein's development of the relativity theory, for example, required an order of intellectual rigor and creativeness, a perception of integrating relationships far superior to the discovery of most of the factual data on which they were based. Turner's theory that the Western frontier served as a safety valve for society on the eastern shore likewise involved the assembling of a vast quantity of detailed research data, but its dramatic quality was the creative synthesis of previously unrelated facts.

The college teacher, on the other hand, must devote his time largely to keeping himself informed about the development of new theories and knowledge in his own and related fields. Hence, the concept of research as an integral part of the Ph.D. degree program for college teachers ought to be broad enough to include intellectual activity concerned with the integrating of large bodies of diversified knowledge in meaningful units of instructional materials. Speaking of the urgent need for teachers who possess these abilities, James Harvey Robinson attempted to describe their functions in the following words:

> They should be reassorters, selecters, combiners and illuminators. They should have a passion for diffusing knowledge by divesting it as far as

possible of its abstract and professional character. At present there is a woeful ignorance, even among persons who pass for intelligent, serious and well-read, in regard to highly important matters that are perfectly susceptible of clear general statement.[10]

The processes of evaluation and judgment involved in a critical examination of ideas, theories, proposals, and hyphotheses are those which the average citizen needs in his everyday life if he is to live intelligently. The prospective teacher of undergraduates should in graduate school be habituated in the use of these capabilities and skilled in nurturing them in others. The educated adult, faced with complex problems in the physical and social world, cannot launch an experiment to discover the solution he requires. He needs, instead, to be driven by intellectual curiosity, to possess the ability to discriminate between reliable and unreliable sources of information, and to be skilled in evaluating the knowledge which already exists. The college teacher's primary responsibility is to cultivate these abilities and traits. The exercises in which he engages in the scholarly activities of the graduate school ought to prepare him to do so.

A liberalizing of the research requirements for the doctor's degree to encourage candidates to prepare dissertations requiring broad learning and the integration of knowledge rather than factual investigation might draw to college teaching many who now see greater excitement in other intellectually less confining occupations. An educational experience which allowed greater freedom to range widely in the fields of knowledge, to establish relationships between the facts and theories of various disciplines, and to reflect on their meaning in the lives of ordinary people, might attract a number of inquisitive and noncomformist minds which now seek their intellectual satisfactions elsewhere.

4. *Seminar in theory and practice*

While the prospective college teacher is acquiring the essential corpus of knowledge and learning to use in the exacting duties of teaching youth, he ought also to be discovering something about his prospective calling. In some degree this occupational orientation

can be provided in seminars exploring the increasing significance of higher education in our national life. A considerable body of scholarly fact and theory now exists relating to (1) the history, philosophy, and purposes of higher education in a democracy, (2) the mechanisms by which colleges and universities are structured, administered, and governed, (3) the myriad variations in academic ability and interest among the students the teacher will encounter in different types of institutions, (4) the teaching practices which have proved useful with different subjects and the varying circumstances of the classroom, (5) the more accurately revealing means now available for appraising the results of education, and (6) the place of the teacher's own subject in the student's total undergraduate education and in his life.

If members of the profession possessed the readily available knowledge, much of the confusion in discussions of higher education — so wasteful of the time and energy of those who engage in them and so frustrating and disillusioning to the general public — would cease. A seminar which considered the most reliable findings in educational history and psychology, in testing, in the economics and sociology of academic life and the place of higher education in American culture, would prevent college teachers from remaining always amateurs in their chosen calling. They would thus obtain the basic knowledge necessary to consider intelligently the educational problems which morally they can neither avoid tackling nor attempting to solve in ignorance. Experience in a few institutions suggests that these seminars, if led by informed and stimulating teachers, have wide faculty support. In addition to improving teaching in undergraduate colleges, the seminars would in time also assist in the resolution of the perplexing educational issues of our day. In order to provide experience in the actual handling of a class, each member of the seminar should from time to time also take charge of a class under the direct supervision of a mature teacher of recognized skills. Graduate students should not be allowed as they now often are to take even sections of a course without discussing their procedures of teaching with an experienced faculty member of acknowledged status and competence who

should be expected to observe them in action in the classroom and make suggestions for the improvement of their teaching ability.

Nothing suggested here need in any way damage or reduce the influence of the several departments of knowledge in the universities. Research of a highly specialized, esoteric character must be promoted and adequately supported. The advancement of knowledge is essential to the well-being of our culture. The programs advocated here are designed to complement these traditional activities by improving the ability of some products of the graduate schools to disseminate knowledge to the average citizen in forms that are understandable to him and that he can use in coming to grips with the personal and civic problems which face him today.

Fortunately, leaders in graduate education have in the past few years come to recognize that the conventional programs leading to the degree of doctor of philosophy do not normally prepare future college teachers adequately for their prospective responsibilities. A variety of proposals have been made for the inauguration of degree programs that, without depreciating the quality of scholarship expected of future college teachers, would nevertheless accept the realistic view that many will not be productive researchers, and further that their probable teaching responsibilities will require a broader range of knowledge than that typically acquired in the Ph.D. program. The Council of Graduate Schools has studied this matter throughly in cooperation with other concerned professional bodies. In 1972 the council issued a statement dealing particularly with the kinds of modified graduate programs that might be established leading to the granting of the doctor of arts degree for college teachers.

The statement of 1972 delineates the qualities which such programs should cultivate in those who will devote their professional lives primarily to teaching rather than to research. Quite properly the position taken by the council is that a teaching degree should not be second rate compared to the Ph.D. degree and therefore states that:

> The most important ingredient in the establishment of a successful doctor of arts degree program is the quality of the faculty. The faculty must consist of dedicated and experienced teachers who are knowledgeable in

their discipline and who have a philosophical commitment to the preparation of outstanding university and college teachers.[11]

This general position is also supported by a statement of the Council of Graduate Schools in the following language:

A primary assumption is that professional competence for the beginning teacher can be improved, through both formal and informal study. The teaching scholar and the graduate program for his preparation have identifiable characteristics which make him more valuable at the outset to the undergraduate institution and to those whom he teaches.

He will be student-oriented, and the main thrust of his scholarship will be in the teaching-learning process, in the dissemination of knowledge. He will be interested in a broad, humanistic approach to the instruction of those who as citizens must deal in daily life with a broad spectrum of problems and human resources and weaknesses. He seeks to integrate knowledge at the undergraduate level of teaching — not to specialize and fragment what the students learn. Although the effective college teacher is appreciative of the depth of scholarship exemplified by his more specialized colleagues and is able to apply the results of their research, he usually teaches a broader range of courses in the undergraduate college. He must possess research skill sufficient for maintaining his personal scholarship, which may be reflected in publications and participation in learned societies and organizations; however, his main purpose will be the effective application of research to teaching.[12]

The report then goes on to describe certain qualifications of the college teacher holding the doctor of arts degree that will in some significant respects distinguish him from those who have taken the Ph.D. degree.

The effective college teacher knows how to communicate well and how students learn. He understands the nature and mechanics of viable course construction. He can construct effective tests and utilize other evaluation techniques. He adapts the techniques of classroom presentation to a variety of conditions, class sizes, and types of classes. The effective undergraduate teacher will understand his role and techniques for the advisement of students. He will understand the role and responsibilities of the faculty in collegiate institutions.[13]

The proposals, however, which bear most directly on the design and teaching of a proper program of general education are set forth in the following quotation from the report.

The primary purpose of the academic component should be to provide broad teaching competence at undergraduate levels. The philosophical objective is to produce broad competence in contrast with research specialization and to exemplify a humanistic approach to human problems and to teaching. The purpose is to provide integration of knowledge for undergraduate teaching, not to specialize and fragment what the teaching scholar knows and learns. Graduate study for the doctor of arts should reflect this function of teaching; hence, wide course selection within the doctoral student's basic discipline and interdepartmental and interdisciplinary study are desirable. Formal graduate course work should prepare the prospective teaching scholar for other broad teaching responsibilities. A major part of all course work must be explicitly graduate in level and quality.

Course selection should thus be typically broader and less narrowly specialized than for the Ph.D. and may bridge several supportive disciplines. A broad disciplinary major can be strengthened under proper advisement by the inclusion of courses in related disciplines and academic areas. *The degree program should strengthen the teacher's ability to integrate and synthesize, to compare data and information, and to apply knowledge; discovery of new data and new "truth" is not the aim.*[14]

J. Boyd Page, president of the Council of Graduate Schools in the United States has supplied the following table prepared by Robert H. Koenker which shows the trends among universities in offering or considering the doctor of arts degree 1970-74.

NUMBER OF INSTITUTIONS OFFERING, PLANNING TO OFFER, OR CONSIDERING THE POSSIBILITY OF OFFERING THE DOCTOR OF ARTS DEGREE; AND THE NUMBER OF INSTITUTIONS OFFERING DOCTORAL PROGRAMS SIMILAR TO THE DOCTOR OF ARTS DEGREE

Year and Month of Study	Offer the D.A. Degree	Planning to Offer the D.A. Degree	Considering the Possibility of Offering the D.A. Degree	Offering Doctoral Program(s) Similar to the D.A. Degree	Total
March 1970	3	27	46	12	88
November 1971	16	11	60	52	139
November 1972	20	7	33	48	108
January 1974	22	3	23	47	145*

*Includes 50 institutions mentioned by Koenker, p. 107.

The following reasons are then enumerated showing why more institutions have not initiated the doctor of arts degree.

The number of institutions offering, planning to offer, or considering the possiblity of the doctor of arts degree has remained about the same in the last two years. In addition, the number of institutions offering doctoral programs similar to the doctor of arts degree has also remained about the same; however, in this study 50 other institutions reported that there was sufficient flexibility in existing doctoral programs to offer a D.A. degree type program.

It is the author's opinion, derived mainly from comments made by the respondents, that more institutions would initiate the doctor of arts degree programs, but the following factors have limited its development: the relatively large number of institutions which now offer what they consider the doctor of arts degree type programs under existing programs, namely the Ed.D. and Ph.D. degrees; the number of institutions which state that there is sufficient flexibility in existing doctoral programs to offer a D.A. degree type program; the restrictions placed by state commissions of higher education on the introduction of new doctoral programs; the oversupply of doctor graduates; the financial problems which face many institutions of higher education; the uncertainty of times in graduate education; and a lack of understanding of the purposes and functions of the D.A. degree.[15]

A review of the retarding influences on the development of more D.A. programs reveals the extreme difficulties which lie ahead in making any substantial advances in increasing the number of college teachers prepared specifically for their academic responsibilities. Moreover, the main obstacle to such developments is not even mentioned; that is, as from the beginning of doctoral programs a century ago many members of the profession believe that the college teacher who has not completed the typical research project for the Ph.D. degree, and who does not continue his research activities after he assumes his teaching position, cannot be a qualified teacher. This has been the nub of the problem for at least a half century and it will not be resolved until those who man the firmly entrenched graduate departments in the universities have a change of mind, or until institutions which have entered the graduate field lately gain strength and prestige. E. Alden Dunham in his study reported in *Colleges of the Forgotten Americans*, expresses the view that the institutions which formerly trained teachers for the public schools, now generally named state colleges might offer

the best hope for the establishment of new programs for the preparation of college teachers. In his view,

> The time is now ripe for a major innovation in the preparation of college teachers. Predictions of a surfeit of Ph.D.'s in the 1970s underline the immediate importance of channeling large numbers of aspiring graduate students toward programs that are relevant to the teaching tasks of mass higher education. Research Ph.D. programs are an inappropriate and inefficient way to meet the faculty needs of the bulk of American institutions of higher education. My radical recommendation is that state colleges and regional universities take the lead in establishing a new and different doctoral degree specifically focusing on the preparation of undergraduate teachers, with special concern for lower-division teaching, whether in two- or four-year institutions. One thousand junior colleges enrolling 25 percent of all students in higher education are crying out for faculty members, persons with training beyond the straight master's degree but different from the research Ph.D. The market for such people would be enormous in liberal arts colleges as well. And, finally, in the emerging state colleges and regional universities there ought to be an almost limitless opportunity for such people, provided that the stated purposes of these institutions are meant to be implemented.[16]

Continuing in his characterization of the teaching degree Dunham observes:

> It is a degree awarded by the faculty of arts and sciences, not by the faculty of education. Heavy involvement by arts and science people is essential, not just for prestige but because at least 75 percent of the program is in academic areas. While there is heavy emphasis on scholarship, the thrust of work is applied scholarship, and the dissertation relates to curriculum and instruction at the college level. There is in-depth study of a discipline but also *interdisciplinary and problem-centered approaches to general education* for which at present it is almost impossible to find enthusiastic faculty. As at Carnegie-Mellon University, the educational component of the program, about 25 percent, might consist of a course in learning theory, methodology, cognition, dissertation seminar, and internship, whether in a two- or four-year college. Future faculty members should know something about teaching, the students they will teach, and the history and problems of higher education. A final and important point: the doctor of arts is a terminal degree; it is not a consolation prize for losers en route to the Ph.D., nor is it a beginning step for people aiming at the Ph.D.[17]

One of the most revealing facts in Dr. Page's report is the few D.A. degrees that had been awarded as of September 1, 1973.

While two universities had granted 60 and 33 degrees respectively, all the others reported less than ten and three institutions had awarded only one D.A. degree. Obviously, considering the size of the whole establishment of graduate education in the U.S., the teaching degree has as yet achieved little standing or popularity.

Moreover, the limited facts available on the content of these new programs justify the conclusion that they will broaden the scope of instruction in a single discipline but, on the whole, they are not so constructed as to permit graduate students to select courses broadly in several departments to enable them to teach problem-oriented general education courses. The plain fact of the matter is that the surface of the problem of preparing college teachers to offer the kind of instruction the bulk of college students will require to lead an intelligent and informed private and public life has barely been scratched. Many individual college teachers and many institutions have on their own initiative in the past few years inaugurated arresting programs geared to our social needs today, but until the universities as a whole seriously undertake the revisions of goals and programs required to produce a highly competent, broadly educated, intensely devoted company of undergraduate teachers little progress can be made in the reform of college education and in the more effective preparation of our people to deal with the pressing problems of our time. A heavy civic responsibility rests unremittingly on the shoulders of administrators who direct graduate programs and faculties that determine their policies to meet the urgent need for teachers of undergraduates, and especially those who will have to design and offer the new instructional units so urgently needed at this stage in our history.

E. Alden Dunham, *Colleges of the Forgotten Americans*, 1969.

1. Association of American Universities, *Journal of Proceedings and Addresses of the Fifth Annual Conference*, New Haven, 1904, 40-41.

2. William James, "The Ph.D. Octopus," reprinted in *Memories and Studies* (New York: Longmans, Green and Co. 1912), 337-38.

3. Glenn A. Reed, "Criticisms of the American Graduate School 1900-1945," unpublished doctoral dissertation, Stanford University, 1950, 225.

4. Barnaby C. Keeney, "The Ph.D. in the Humanities," *The Graduate Journal*, VIII (1971), 424-25.

5. Commission on the Training and Utilization of Advanced Students of Mathematics, "Report on the Training of Teachers of Mathematics," *American Mathematical Monthly*, XLII (May 1935), 265, published by the Mathematical Association of America, Inc. at the University of Buffalo, Buffalo, N.Y.

6. Marcus W. Jernegan, "Productivity of Doctors of Philosophy in History," *American Historical Review*, XXXIII (October 1927), 2.

7. Wilder D. Bancroft, "Pandemic Chemistry," *Journal of Chemical Education*, (April 1926), 396-97.

8. James Bryant Conant, *Education in a Divided World* (Cambridge: Harvard University Press, 1948), 125.

9. Dixon Ryan Fox, ed., *A Quarter of a Century of Learning, 1904-1929*, (New York: Columbia University Press, 1931), 91.

10. James Harvey Robinson, *The Humanizing of Knowledge* (rev. ed. New York: George E. Doran Co., 1926), 71.

11. *The Doctor of Arts Degree: A Proposal for Guidelines*. A Statement by the American Association of State Colleges and Universities (February 1970), 5.

12. *Supplemental Statement on the Doctor of Arts Degree 1972*, Council of Graduate Schools in the United States (Washington, D.C., December 1971), 9-10.

13. Ibid., 10.

14. Ibid., 12-13.(Italics added)

15. Robert H. Koenker, "Status of the Doctor of Arts Degree" (Jan. 11, 1974), mimeograph, 1-2.

16. E. Alden Dunham, *Colleges of the Forgotten Americans*, A Profile of State Colleges and Regional Universities (New York: McGraw-Hill Book Co., 1969), 158-59.

17. Ibid., 161. (Italics added)

VI. NEGLECTED DIMENSIONS

> Music and gymnastic together made up Greek education. Music trained the mind, gymnastic the body.
>
> The very popularity of athletics was their undoing. Excess begets Nemesis: the Nemesis of excess in athletics is professionalism, which is the death of all true sport. —
>
> E. Norman Gardiner

Even in thoughtfully designed programs of general education three areas of living have been especially impoverished. The first concerns the cultivation of the capacity to appreciate beauty in nature and in the creative arts. The second is related to the maintenance of a sound mind in a sound body; as Juvenal put it, *Mens sana in corpore sano.* And the third is the fuller development of a general education for adults especially those in the upper-age brackets.

The Arts in General Education

As far as an adequate general education is concerned, one of the generally scrimped fields of learning among the rank and file of undergraduates encompasses the arts: dance, painting, sculpture, music, films, and the others. Until recent years — in fact, decades after the natural and social sciences had broken into the classical curriculum — the arts suffered from lack of academic status, unsuitable buildings and equipment, budgetary discrimination, and, with notable exceptions, a general deprecatory or indifferent attitude on the part of the "established" academic community. In his survey of the arts in higher education, Jack Morrison, observing the relatively modest position of the arts on the American campus, expressed the opinion that:

> The rise of the arts on the American campus is the result of a long and constant, if not consistent, battle of the natural inclination of human beings to sing, play, draw, paint, sculpt, write, and dance against the forces of puritanism, the work ethic, and the narrow scholasticism of the colonies and later of the United States. This battle still goes on.[1]

Morrison would doubtless agree that puritanism's restraining influence on the arts was much greater early in American intellectual history than in recent decades and that the counter effect of the work ethic likewise is losing its force. Paradoxically, as far as the general education of our people is concerned, the art devotees who desire to achieve a position of status in the company of specialized disciplines which provide advanced instruction for those with professional interests may now be the most restrictive stumbling block in the expansion of these services to the general run of students. Morrison asks questions which reveal that he, like his precursors in the other disciplines, seems to be interested in establishing his subject among the academically "elite" rather than in assuring that all college students will gain some knowledge of, and preferably actual experience in, at least one of the arts:

> It was and is simply a matter of time for the arts as one of the vital aspects of human endeavor, to become an integral part of higher education in balance with the sciences and technology, the social sciences, and the humanities. But since the arts are not dependent on higher education, the vital questions are these: Will higher education and the arts coexist vulgarly or beautifully — meaningfully or superficially? Will the arts be at the center of the university or on the periphery? In either case, what will be the effects on our society?[1]

Nothing that is said here should be interpreted as detracting from Morrison's excellent survey. Nor should he be criticized for his observations on the historical and current indifference of the so-called educated person toward beauty and ugliness in their varied manifestations in our culture. On the contrary, he deserves commendation for his efforts. He has performed a heroic task in bringing to light information about some of the laudable efforts in colleges and universities to enhance the services in the arts fields. He has also rightly exposed the failure of some institutions to give proper financial and spiritual support to the arts and called for a more prominent position for them in higher education and in our culture as a whole. Morrison's report deserves the reading not only of those professionally engaged in the practice of the arts and all members of the academic community but the citizens as

well who wish to gain for themselves the rich psychological rewards which flow from the recognition and appreciation of beauty.

Observations and recommendations at the end of the report strongly suggest, however, that Morrison and the various professional associations and departments he refers to — for example, the Directory of American College Theatre and the first scholarly film program with a Ph.D. established at New York University in 1970 — appear to be more interested in the training of artists than in the cultivation of artistic taste and appreciation among the citizenry. As this volume is intended to show, this tendency in all the disciplines to "live up to the Joneses" scholastically is at the root of the problem of ignorance among our people. The uninhibited desire to advance research and specialized instruction and to enhance professional visibility among the academic "elite" are the very motivations in the academic establishment which prevent the development of the kinds of instruction needed to elevate the general esthetic understanding and sensitivities among our people, just as they have blocked general education in other fields, notably the sciences.

Yet, Morrison himself seems to be disturbed by the degree to which art devotees and teachers have succumbed to the attractions of becoming accepted in the society of scholarship, for he says:

> . . . the arts have become naturalized even when they are fully integrated. The parallel phenomenon is worth noting. As art has gained in academic respectability, as graduates have moved out of the colleges into the academic marketplace, the degree syndrome has influenced administrative judgments. Art faculty members are not quite the free agents they once were; the degree credential, having become more common, has been confused with artistic or teaching competence. It is a case of the colleges succumbing to their own propaganda: students have been guided toward degree programs; have moved *toward intellectualization;* and art generally has produced a new generation of idea-oriented artists, capable of thinking art-as-object right out of existence. All this may have been inevitable in any case. But the independent or studio-based professional schools have responded to the challenge of campus-based artist-teachers by themselves moving toward the colleges in both intention and process.[2]

Yet the recommendations beginning on page 163 of *The Rise of the Arts on the American Campus* deal primarily with the

problems and tactics of the well-established disciplines in preserving their own identity, in gaining special preferment in the budget for their own advanced courses, and in developing programs for future professionals of their own kind. Morrison's preoccupation with the training of the artist rather than with the ordinary college student appears again when he stresses the appointment of trustees out of the arts fields, the enhancement of the occupational outlets for graduates in the arts, and "grantsmanship" training among faculty members in the arts to match the competitive efforts of the scientists. There is nothing unfitting or reprehensible in the present, highly competitive academic world in trying to gain for the arts their proper share of institutional resources and prestige. Indeed, with prospective economies in higher education in the next five to ten years, art representatives will have to contend with those departments which already stand in a preferred position.

Perhaps under existing economic conditions, the political organization of the academic community, divided as it is in intense and aggressive competition for programs to serve the specialist, the emphasis in the arts will have to be on these kinds of service. A drive for discrete identity, intense pursuit of large enrollments in the upper specialized levels of instruction, and acquiescence in a limited concept of successful service may be for the time being the only means to gain appropriate status and support. In the long run, this is not the realistic route toward the goal of making our people as a whole more artistically conscious and supportive. Nor, until a large percentage of our citizens understand the value of the contribution of the arts to all aspects of our culture, will those individuals and institutions whose primary concern is art receive the financial support they deserve.

At present, integrated arts units designed specifically to elevate the standards, taste, and appreciation among students at large do not seem to have a prominent place in the artist's motivation to gain a more visable place in the academic firmament. More emphasis needs to be placed on Morrison's second point which is buried under many other professionally oriented recommendations. This proposal to the effect that general education in the arts for the

average student is essential, if our people are to appreciate beauty in all its forms and indeed create it themselves, requires much greater attention and unrelenting support from both academic personnel and laymen. Highlighted should be the implications flowing from recommendation three of Morrison's, namely, that those primarily interested in the arts should work more closely with others in the university, especially in the humanistic disciplines, in providing a more rounded introduction to our rich cultural heritage.

The aspect of education in the arts, as in all the other disciplines with which this treatise is primarily concerned, however, concerns the relative illiteracy of many college-going youth today with respect to the general conditions of life, and the whole sphere of the arts is no exception to the rule. It has been said earlier that a ferment pervades campuses and faculties arising out of the recognition that Western culture, indeed the whole family of human beings, is in crisis. Only a broader, more relevant higher education including the arts of all types can adequately prepare our people to deal effectively with the conditions of society today which vulgarly dehumanize our personal lives, bleed our national vitality, and undermine our earlier pre-eminent posture in the commonwealth of nations. Persons of penetrating knowledge and thought have been quoted to the effect that education must be so redesigned and redirected that those who leave our institutions of higher education will be more fully equipped to deal with the problems of improving our common lot. It has been proposed that the curriculum and other experiences of campus life be so reorganized as to bring all students, regardless of their own personal intellectual and vocational interests, more directly into contact with the pervasive issues of the day. One of the experiences of the author which caused him to deal with the arts was the arresting fact that many of these proposals for a restoration of general education programs made no suggestions about the arts. Little has been said about the crucial importance of the arts in any culture and in any life; in fact, nothing was made of the fact that the arts could remodel our life style as a people and elevate individual taste and humane

spirit. Exceptions can be found but when the arts were treated at all they were often subsumed under the rather ill-defined category of the humanities, a relationship that can be fruitful, but a position that can be devitalizing.

This neglect of the arts is convincingly described and analyzed by Margaret Mahoney in *The Arts on Campus*. After a survey of the subject in thirty-five colleges, she summarizes the inconspicuous role which the arts play in the education of the total student body. She also takes a look that goes deeper than a mere curriculum analysis and writes about the interests of students in the arts and comments on the place of these disciplines in the development of a *philosophy of life*. Quoting a study of the reasons students go to college Mahoney observes that two-thirds seek to gain a philosophy of life but only a few enroll in art courses, which permits her to draw the conclusion that the arts seem to be considered irrelevant in their search for life's meaning.

> The annual survey by the American Council on Education (ACE) of incoming freshmen at 358 colleges has shown for the last two years that roughly 8 percent are thinking about a major in one of the arts. The other students probably fall into one of the following categories: indifferent toward the arts; busy in other areas; fundamentally suspicious of the arts; too conscious of inaptitude to enroll in courses with more talented students. I cannot substantiate this conjecture, but students themselves confirm that, in general, half the student population is totally uninterested in the arts. I suspect that the attitudes range from the view that the arts are nonutilitarian to the one that they are nonintellectual activity reserved for women and nonmasculine males. We know from several studies, including the ACE survey of freshmen, that the majority of students go to college to acquire a marketable skill and to make friends, and that few students see the arts as directly relevant to those objectives. But over two-thirds of the freshmen have stated that one of their reasons for going to college is also to seek a philosophy of life. The fact that relatively few students, in proportion to those who as freshmen have stated such a goal, enroll in arts courses during four years at college, suggests that few students think of the arts as relevant to their search for a philosophy of life.[3]

Mahoney then summarizes the opinion of various contributors to *The Arts on Campus* when she expresses the opinion that the arts must be central, not peripheral, or the sole possession of the art-inclined.

If we as authors have a bias it is that we believe that the nation's most *explicit need is for citizens who will be creative participants in shaping environment and that the colleges have an unmet responsibility to provide an educational experience that will encourage students to accept this role.*

The arts become central in such an educational task and cannot be treated as extras or as the special province of artistically talented students. Nor can the artist-teachers be set aside for mere display purposes or given second-class status on campus. The chapters that follow concern the need for changing attitudes and contain specific ideas for developing a setting in which the arts can be studied and in which artists as teachers and guides can be active participants in the educational process.[4]

In the same study, James Ackerman speaks directly and articulately to the main thesis in this volume in reference to all subjects to the effect that the purpose of the art programs in colleges is to offer general, not professional, education. There is hardly a paragraph in the literature of education (not pedagogy) that speaks so eloquently of man's need today than Ackerman's last paragraph below.

The function of a college art program is to offer general rather than professional education, and to expand the scope of a liberal arts education by offering alternative ways of perceiving and communicating. Its ultimate goal, then, is consonant with that of a liberal arts education.

The goal of education in the age of objective analysis has been to prepare students to analyze objectively. Its limitations as well as its benefits are apparent; the analytic method has shown us how to understand and how to act, but not how to choose what we want to understand and to act upon.

Without sacrificing the technical and operational efficiency of the analytic method, a new goal may be set for college education, of a dual nature directing the internal and external development of the individual.

The internal aspect is the encouragement of *self-realization*, the preamble to effective experiencing and functioning within one's self and within society. The disciplines of art assist this process by giving articulation to the unconscious form-making impulses, subjecting to rational control the forces that well up from the inside and reach for undefined goals. It is the making of civilization re-enacted by each individual as he learns to turn a shout of joy into an aria or a mud pie into a figurine. It involves not only the inward search for identity and the drive to express but an accommodation to tradition and to contemporary culture. The more

intellectual and scholarly disciplines cannot as effectively help the individual to achieve an integration of the emotional and rational factors in the personality.

The external aspect is ethical: the preparation of the student *to make and to maintain a humane social and physical environment.* This demands a radical change in higher education, because it admits into teaching and scholarship certain judgments of value and actions based upon them.[5]

The author of this volume shares intensely Ackerman's claims for the values — esthetic, intellectual, social, and moral — which could flow from properly conceived college programs in the various arts. A number of celebrated authors have been quoted to the effect that science and technology have shown "the how" of things, but not "the why." One of the first responsibilities of the arts, as Ackerman has said, is to do just that. The burden of the argument in this volume is that instruction in the arts, no less than that in science, must constitute an integral part of the general education of all students. Thus far, with notable exceptions, this point of view has not prevailed among the leaders of the intellectual establishment. In fact, it is a view that has been shunned and sometimes ridiculed, as no doubt it will be by the sciolistic again. In latter years, however, few members of the academic guild have expressed outright opposition to the development of more adequate programs in the arts, but neither have they overtly supported the educational philosophy that would make art in some form an indispensable component in the experience of all college students. The most irreconcilable proponent of a common requirement in the natural sciences for all students, regardless of their special intellectual interests, often turns a deaf ear or jaundiced eye to any plea for a similar requirement in the arts. The often unexpressed, but antiquated opinion of many academics continues to be that except for those who intend to make a career of practicing one of the arts, students need not be required or even encouraged to pursue such instruction. It is often argued that those who wish to pursue the arts for sheer personal growth and enjoyment should gain the essential knowledge, skill, and insights into the realm of beauty through extracurricular activities. This obscure and self-serving view conflicts directly with many of the conceptions of the place of

the arts in the totality of a higher education expressed by Mahoney, Ackerman, and their associates.

In recent years some colleges, to be sure, have considerably expanded their offerings in the arts, but few have reached the level of Bethel College in Minnesota. One of the distinguishing features at Bethel is the recognition that the studio arts can make a contribution to the education of every member of the student body that is as significant as the college's effort to provide basic skills for future professionals in one of the arts. In speaking of the particular mission of instruction in the arts, Eugene Johnson, professor of art at Bethel, observes:

> Creativity is found in every pursuit of man and is not limited to the world of the arts. It is, however, a necessary preoccupation of the artist, and thus sets those departments concerned with the arts apart from most of the rest of the college. It is difficult to generalize from one artist to another or from one media to another. But it can be asserted there is much involved in the creative process that is nonverbal.
>
> I am aware of some who hold that "thinking" is possible only by the use of words. I disagree. Such an idea is tenable only if you limit your position by definition. When a painter is working on a canvas he may or may not "think" in words. Much of the time he is "thinking" in color. New ideas are evolving and appearing which have no verbal equivalency. Usually only after the act of painting has been completed does the artist conceptualize in retrospect verbally.
>
> The creative process is an important part of the training of those students who would investigate their potential as studio artists. The other facet of the esthetic experience should hold interest for the entire student body — the development of one's ability to respond fully and appropriately to works of art and of nature. This goal of developing an appreciation and enjoyment of the arts is seldom achieved within an esthetic course taught by the philosophy department. There are, hopefully, exceptions but most esthetic courses are a history or survey of philosophical esthetic positions. And seldom is the teacher or student involved with the art experientially.
>
> The typical "art appreciation course" may not be much more successful but for other reasons. Perhaps it is too much to expect any one required course to take every student who has been conditioned almost completely in every other course to think verbally and to try to introduce him to a new way of responding to his visual world. Much of the success of such an experience depends upon the teacher and the mind-set of the students.[6]

The expansion of art at Bethel, a rather small liberal arts college, is notable and atypical of its sister institutions. All five faculty members in art teach both the studio courses and the courses in the history and appreciation of art. This provides the opportunity for a student at Bethel to take various courses in ancient and modern art or studio work in drawing, sculpture, ceramics, painting, print making and graphics, as a part of his or her general education, or to prepare professionally for the teaching of art in the elementary and secondary schools. A relatively new and creatively designed campus has encouraged the periodic exhibitions and lectures by leading artists that further enrich the art experience of all students. Bethel's program in the arts is ideally designed to meet the requirement of general education as conceived by this author. It is not something tangential to the main body of academic life, but rather it is central to the intellectual, emotional, esthetic, and spiritual development of all students whatever their professional or vocational goals may be.

If ever there was an age for concern about the place of the arts in the total education of all citizens this is it! In the case of the sciences citizens generally are now being called upon, or should be, to participate in the public policy-making processess which will determine many features of our common life during the years ahead. No less are they participating even if only through their ignorance or nonparticipation in public decision-making with regard to architecture, painting, sculpture and functional form and balance in the reconstruction of the so-called inner city, or for that matter in the development of outlying areas. Some suburban as well as inner-city developments have the meretricious beauty of a plastic Christmas tree. Colleges and universities could educate the general run of students to perceive the real qualities of beauty and the social significance of esthetically designed living conditions and thus stop much of the sleazy but often expensive construction. More significantly in a democratic society, this control would not be imposed by legal restrictions on profit-conscious developers, but by the unwillingness of esthetically conscious buyers to invest in the ghettoes of a quarter century hence.

Campuses themselves should reflect an awareness in the academic community that education in the appreciation of beauty, or the unconscious nurturing of a toleration of ugliness, goes on day by day as much through the grounds and buildings as through the activities of the classroom. Psychologists agree that some of the most effective and lasting learning, favorable or unfavorable, occurs quite unconsciously in life's unstructured experiences. Before the long-run effect of these experiences on the esthetic tastes of citizens can be maximized there must be general acknowledgment among the people that education in the arts is as essential as instruction in any of the other disciplines, especially those which analyze reality into its minute elements.

The justification thus far for a general education requirement in the arts has rested primarily on the practical outcomes of such instruction. The more cogent reasons, however, stem from other more compelling considerations. The author earlier contended that one strong argument in favor of general education arises out of the present preoccupation among members of the profession with their own limited specialized cognitive exercises and the cultivation of only a narrow range of qualities of mind and spirit. The arts deal with human traits that are much more inclusive and that differ substantially from the ingrained habits of analysis of reality that now characterize even the humanities. This is not to say that the practice of the arts requires less sharp intellectual perceptions or creative thought than the other disciplines. On the contrary, they involve perceptive insights and imaginatively synthetic thinking often missing in the routine, systematic pursuit of "truth" in other disciplines.

But the arts do more. They require insights into the wholeness of life in its infinitely varied aspects. They emphasize combinations into integrated wholes rather than disjunction into meaningless parts. They approach the study of mankind and reality, seeking meaning in its broader, more humane sense, and thus they act as an antidote to the habits of mind of dissecting reality in positivistic research. They appeal to the intellectual and emotional impulses which in this fragmented and inhumane culture urgently need

cultivation. They can restore significance in life where teleological vacuity exists.

Those engaged in the practice and teaching of the arts may place another outcome of their work low in their scale of values (again because they do not want to seem to operate at lower intellectual or academic levels than their colleagues in other disciplines). Some may play down the demonstrable fact that the practice and the appreciation of the arts constitute one of the most effective therapeutic devices to cure the ills of our disoriented and disordered public and private lives. This is one persuasive reason why studio courses, as well as general instruction in the history and appreciation of the arts, ought to be essential elements in undergraduate general education programs. Many students having no desire or talent to become professional artists ought to leave college with the interests and at least the elementary skills needed to spend the rest of their lives in amateur participation in an artistic field. If the representatives of the arts really believe that they have an important contribution to make to the elevation of our culture, they will bend their efforts not so much to getting established on an equal basis of academic respectability, if that means turning out more Ph.D.'s and neglecting undergraduate courses in the arts. They will, instead, accept as their normally inescapable responsibility the nurturing among our people of the capacity to appreciate beauty in nature and in the creations of the practitioners of the arts.

The arts must obviously occupy a more prominent place in the total program of general education than they have hitherto. It may be even more difficult to get a consensus on this proposal than on the need for general education in the well-established disciplines such as the natural sciences. Much of the academic fraternity still considers the arts as lacking in intellectual substance and many lay citizens continue to look upon "art" as the preoccupation of the wealthy, leisure, or odd classes. It is the responsibility of the profession to change these attitudes by making the arts an integral part of every undergraduate program. It should be re-emphasized that the aim should be not only to cultivate attitudes of appreciation, but also to offer opportunity for lifelong practice

of one of the arts such as music or painting even if the practitioner must perform at a level considerably below the professional. To introduce a full program in the arts, diverse as they are, into a full-fledged program of general studies, will call upon the skill and imagination of curriculum designers in these fields, but this is a task worthy of their most devoted efforts and the sympathetic understanding of the entire academic community.

Physical Education and Health

The second area of general education that has been slighted covers physical education and health. The author recognizes that physical education, the organic health sciences, and the disciplines concerned with mental health, such as psychology, psychiatry, philosophy and religion are typically separated, if not completely isolated in institutions of higher education. Most representatives of these fields would contend that their potential contributions to good health regardless of their obvious interrelationship in dealing with an individual, must realistically be treated in the instructional program as discrete curricular entities. This point of view presents only another form of the general problem of reorganizing the programs of colleges and universities in such ways as to treat all human problems and issues as organic wholes rather than as fragmented pieces of information. Physicians can produce hundreds of examples in therapy of the close beneficial relationship between exercise and diet, for example vigorous walking can significantly reduce blood sugar in diabetics just as a sugar-low diet can, but in instructional programs it has been shown that items that are closely related in life may be as remote as the moon in the laboratory, library, or lecture hall.

In any event, this section will be developed on the assumption that physical education, certain aspects of medical and nutritional science, and instruction in matters related to mental health ought to be considered together even though those who teach such courses will have specialized in a single discipline and may teach advanced courses in separate departments. The relatively inconspicuous place which the health sciences and physical education have occupied

through the years in the total general education experiences of the average undergraduate has had and continues to have a deleterious effect on the lives of many presumably well-educated citizens. Those concerned with instruction in physical education and health programs have, to be sure, made notable advances particularly since World War II in clarifying the philosophy and enriching programs in these fields. Leaders in these instructional areas have been advocating a broader view which would include matters related to the whole life of the individual, his intellectual, emotional, esthetic, and spiritual development. One of the outstanding educators in this area of instruction, Perry B. Johnson of the University of Toledo, puts this newer, more inclusive conception in the following words:

> I now believe more firmly in the nonphysiological values of play, in the importance of exercise and fitness for a better *quality* of life, in the esthetic value of movement in sport. It is not that I never believed in these; it was just that I (among others) felt we needed desperately to add the other dimension (the appeal to the intellect about the physiological value of health and fitness). Attention to the contribution of activity to quality of life and the esthetic value of activity is now an important part of my thinking. Rather than think of play and movement as subservient or orphaned creatures, I can think of them as means to an end and not ends in themselves. Neither, of course, is physical fitness an end in itself (nor are thinking or feeling for that matter). In my view, play, movement, and physical fitness — among many other aspects of life — are intended to influence the intellect, the ever-changing emotional state, and the physical state of the body (its cells, tissues, and organs) so that ultimately the quality and quantity of one's existence might be optimal, that one may live well and long.[7]

That Dr. Johnson's philosophy matches the dominating thesis in this volume on interdisciplinary studies, that education must not only be concerned with the individual's general competence but also with his potential force in shaping our society is clear when he adds:

> My belief in the importance of this added educational dimension is not limited to physical education. My feeling is that there is a need for many individual-centered courses in a university. We must establish more courses in which knowledge and skill are not ends in themselves but, rather, a means directed specifically and more emphatically at the student's under-

standing of himself as an individual and as a force within our society. Initially, it must be knowledge — not a "sharing of ignorance" in free group discussion — that is the foundation of this understanding of self. But the ultimate goal is for each individual to apply to himself what is known about man and society in each of the several applicable domains of human knowledge. Thus psychology, philosophy, health science, sociology, physical education, and political science most certainly have an important contribution to make in such an effort.[8]

The lethal disregard among the common run of even those who have had the advantages of a college education of the consequences of good or bad health practices, is arrestingly manifested in health and mortality statistics on Americans.

While modern medical knowledge and better nutrition have kept our population free from many physical defects that formerly plagued our people, we suffer from a lethargic attitude characterized by a very real physical and moral degeneration. Because of modern man's aversion to physical work, and his ignorance concerning the benefits of regular exercise, our population has reached an unprecedented low level of physical fitness. It is true that our highly skilled and trained athletes do well in international competition, but these championship performances cannot obscure the fact that our general population, from youth through middle age, is in the worst physical condition of any the world has ever known.[9]

In 1972, deaths in the United States from various cardiac and vascular ailments totaled 1,035,146.[10] Thousands of others have to live severely restricted lives because they have been partially incapacitated by heart ailments. The data on deaths directly or indirectly connected with alcoholism are comparably shocking. Furthermore, the number of those who are not actually killed by excessive drinking, but whose effectiveness in their private lives and in their vocations is seriously reduced, remains an unknown quantity. Agencies who study excessive and often debilitating alcohol consumption among our people estimate the numbers to be in the neighborhood of millions. In spite of the dramatic results through the use of drugs in the treatment of emotional disorders of various severity, the percentage of Americans sufficiently disturbed or maladjusted to require continuous medical care constitutes a national problem. The kind of instruction college students receive in a course in elementary psychology, a subject the author taught for

a number of years, or in philosophy and religion, apparently leaves many unprepared to deal with the common run of life's problems, to say nothing of those whose fate it is to encounter unusually disturbing conditions over which they have no control. In addition to those referred to, medical and nutritional scientists recognize a wide range of health problems, the etiology of which arises in considerable part, from ignorance or indifference toward the established facts of nutrition, exercise, and mental hygiene.

The inadequacies in the health education of college students result primarily not from the lack of persons on their staffs who possess the latest facts and theories related to exercise, recreation, sports, diet, and mental health. They occur largely because: (1) As in the case of other curricular problems, faculties as a whole in disciplines other than physical education labor under the conviction that *specialized intellectual training* in a limited subject matter is the dominate goal of higher education. Any time spent by the student in preparing for the whole remaining complex of life's activities is considered an indefensible diversion from the main institutional purpose. (2) Too many young people, to say nothing of those in the middle and advanced ages, believe that the primary obligation of an institution of higher education in physical education is to assemble a corps of outstanding athletes who can bring glory to the institution in the sports arena. Actually, in recent years with the spread of television to almost every home, such activities also provide entertainment for spectators in the recreation room or in the stands. (3) The beauty cult promoted by questionable advertising leads young people to believe that cosmetics, hair styling, vitalizing pills, elixirs, and how-to-succeed-in-life techniques assure attractive bodies and engaging personalities. There is an alternative view that rests on firmer physical and mental grounds. It holds that exercise, balanced diets, and realizable goals provide more reliable and longer-lasting results. Those who teach in the related fields of physical and mental health know that a more attractive body and personality can be achieved by sane diet and exercise. Regrettably, these departments receive only low-key attention except among the members of their own staffs.

The late Paul Dudley White, perhaps in his time the world's most celebrated heart specialist, authored not only standard medical texts for cardiologists and general practitioners; he also wrote articles and books for the general education of citizens identifying practices of diet and exercise which predispose the maturing adult toward or away from cardiac and vascular disease and, incidentally, physical and mental states of vitality and well-being.

In an article, "How to Help Your Heart," White warned readers:

> The first cause of death in the United States today is atherosclerosis, the most serious type is arteriosclerosis (hardening of the arteries). Even when atherosclerosis does not precipitate a heart attack, it *is* still a major cause of physical unfitness in our young and middle-aged men, as well as in older persons of both sexes. . . .
>
> Worst of all, atherosclerosis — at least in youth and middle age — is our own fault, the result, in part, is unhealthy ways of life. It can often be remedied, or even probably avoided, even in old age. If we apply common sense on the positive health habits which yield physical fitness.[11]

To bring this and other relevant knowledge and essential practices of diet and exercise into play in the early years of life even before college days is, as Dudley White contends, indispensable if cardiac failure is to be reduced.

Obviously the lower schools and parents have a large responsibility to induce good habits of diet, exercise and emotional control, but those who determine the practice at these levels are largely the products of institutions of higher education. Hence, if the essential curricular and extracurricular reforms are to be instituted in the lower schools and at home they must be made a part of the college and university programs designed to prepare elementary and secondary school teachers, administrators, and fathers and mothers for these responsibilities.

The basic facts about the effects of proper exercise are readily available. As has been stated, however, several deep-seated barriers make it difficult to correct the present inadequacies in physical education, the first of which is the dominance in the profession of the idea that the *sole* function of higher education is, and should remain, the training of the mind, and preferably within the sphere

of a single discipline. Even if this proposition is accepted as a guiding principle in the construction of the curriculum, modern physiology, endoctrinology, and nutrition show conclusively that the disembodied mind is as medieval a concept as spiritual witchery.

This is not the place to review the long history of the mind-body problem nor to educe the abundant evidence to prove the intimate relation between bodily health, intellectual effectiveness, and the kind of a long life that can be enjoyed. Regular exercise adjusted to age throughout life is beneficial not only in the maintenance of bodily health, but also in the preservation of emotional balance and effective mental activity. Faculties, if they believe that institutions of higher education have any responsibility for the quality of personal life, will recognize that health and physical education must occupy a more commanding position in undergraduate education than they do today. And if this goal is to be accomplished, the general education program must include experiences that can become an essential part of life throughout adulthood. The example of the Greeks in the height of Athenian culture when education was conceived in terms of the harmonious development of mind, body, and spirit deserves emulation in designing a well-rounded general education for Americans today. Obviously a sequence of studies and activities covering the entire four years of college and involving a natural transition into an adult lifetime program of regular participation in individual or multiperson sports is required.

The second reason for the present inadequate attention to physical education for all students is again not primarily the fault of the members of the faculty responsible for physical education. It is the result of a misconception among citizens generally and alumni in particular. Many consider the chief purpose of such a department to be the selection and training of a relatively small coterie of superior athletes whose primary purpose is not even for them the cultivation of lifelong habits of regular exercise. Their physical activities during the years of higher education are primarily to entertain the multitudes who degenerate physically while sitting in the stands. Indeed the financial resources used to support the interinstitutional athletic programs involving only a few students

in many institutions, far exceed the budgets for the physical education programs for a regular student body of thousands.

In recent years there have, to be sure, been significant advances in the development of varied programs of intramural sports; more women have become involved in more varieties of sports; the range of sports has been considerably extended and the number of voluntary participants has manifoldly increased. The resources of professionally competent men and women, physical equipment and facilities, and the proportion of institutional expenditures devoted to such intramural programs have in recent years been substantially increased, but a comparison in many institutions with the expenditures for interinstitutional sports programs reveals where the main thrust lies.

Some of the leaders in physical education have stressed the need to inform the student thoroughly about the reasons why neuromuscular activity throughout life can so notably enhance his or her entire physical and mental well-being, and perhaps extend his life in good health. Logan and McKinney pointed out over a decade ago that:

> Physical educators by their nature are a group of action-oriented people. Consequently, most of the teaching in physical education takes on the *how-to syndrome*. Many physical educators believe that the student must be in action all of the time to derive the potential values of neuromuscular activity. It is hoped by the physical educator that, by some strange osmotic process, current action will diffuse into a habit pattern for future action on the part of the student. Students do need to be taught the *how-to* of skill, but this is not enough for our current, *thinking* student. He also needs to know the *why-of* participation in neuromuscular activities. He needs to know what the neuromuscular activity means to him in terms of his own physiological, anatomic, psychological, and philosophic requirements. The combined *how-to* and *why-of* approaches to teaching physical education may help motivate the students to participate in an activity throughout their lifetime, because insight tends to facilitate foresight. Teachers of the service program should be concerned primarily with teaching activities so the students will be motivated to use the activities regularly throughout their lifetimes. The college physical education class should be the beginning of so-called physical fitness, not the end. We are basically interested in a gallon of perspiration distributed over a lifetime, not a thimble full distributed over two years of college physical education.[12]

Most importantly, however, if the admonitions of Dudley White and others of national stature in the health fields are to be heeded, the emphasis should be on those sports which graduates can participate in until late in life: tennis, swimming, golf, volleyball, squash, and others which if consistently followed can keep physical vigor and mental acuity at a relatively high level.

On the significance of exercise as a factor in good health, a journalist interviewed Dr. White after General Eisenhower's heart attack. In answer to a question, the doctor himself a ceaseless devotee of walking and cycling, expressed the following opinion:

> I don't know whether some people have ever had the remarkably pleasant experience of relaxing fatigue after hard exercise, which I think is a very important benefit for one's health. And it's time that we recognize the usefulness of that relationship to exercise — not just the exercise for exercise's sake, but the beneficial effects that may come especially to a mental worker. I think that probably those who are constantly intent mentally need more physical relaxation of that sort than those who have a certain amount of walking to do in their routine work.[13]

On another occasion, he was asked a question directly relevant to the position taken in this treatise, namely that the habit of playing some physical game ought to be established early in life and continued regularly. Dr. White then gave the professional opinion that:

> The habits established in the teens and in the twenties are likely to last throughout life.
>
> Therefore, it is very important for young people not to give away to the present custom of sitting in an automobile, in their chairs, or in front of the television set for hours, putting on a pound or two every year until at the age of forty-five they are physically soft and as much as twenty-five pounds heavier than they were when they graduated from college or high school.
>
> All in all, regular physical exercise — for fun or to produce something, as in gardening or forestry or carpentry — is good medicine for mind and body and definitely increases the chances of living a long life.[14]

If the physical health and well-being of citizens generally is to be a dominant purpose of physical education programs as both logic and the conditions of our society imply, then the campus athletic spectaculars that occupy weekends from late afternoon to

midnight and latterly increasingly in the evenings of weekdays, ought to have a second claim on institutional concerns and resources. If intellectual content and vocational training can be made a required part of such sports efforts, there is no reason why colleges and universities should not train top-ranked performers in football, basketball, baseball, and the other popular sports, just as they prepare young people for other occupations. But even granting this assumption for many in major sports, the main effort in health and physical education ought to be on the general education of college students as active long-range participants in physical games to preserve physical well-being and mental health.

If, as Dean Jack E. Razor of Illinois State University suggests in a letter to the author, there are assuring signs on campuses that students have become aware of the value of personal, nonprofessional participation in sports, especially those that can be continued long after college days have passed. In this letter, Dr. Razor says:

> There is a great interest and demand for individual and dual activities to be taught on the college campus. Team sports have little popularity as they are taught extensively in the secondary schools and students recognize the need for the acquisition of skill in a lifetime activity. The informal structure will accommodate the need for team sports (intramurals, sports clubs, varsity athletics, informal play, etc.) and thus the emphasis is upon individual and dual sports at the university level. This interest in individual and dual activities has been on the increase for the past ten years and I see it to be a continuing thrust during the next decade. This has been brought about by the realization that people will have more leisure time and therefore the opportunity to express themselves as individuals. Additionally, there are more financial resources available with which to fund individual and dual activities which have previously been available only to a higher income, socio-economic stratum. May I also suggest that the increased interest in such activities on the part of students and society is an attempt to gain an identity and achieve self-realization by a confused and sometimes apathetic society. People want to participate; become involved, be it in physical activity, politics, education, etc. Professional basketball franchises are going bankrupt, professional football leagues are disappearing, college athletics (with the exception of 30 or 40 schools) have very small crowds on a week-to-week basis, student bodies are not "supporting" their athletic teams which was formerly the case, but instead are spending their time pursuing their own physical recreation.[15]

In any event, a comprehensive unit, combining the work of the relevant departments should be included in the general education program of all undergraduate students concerned with the arresting incidence of the degenerative physical and mental health diseases among our people. Nothing less than the cultivation of correct habits of diet and exercise and the acquisition of related knowledge in other disciplines in the college years which can be carried over into the mature periods of life will adequately achieve these goals. Faculty members who consider these responsibilities peripheral or irrelevant to their main purposes miscalculate the proper mission of higher education. It can be argued that these educational obligations to youth, however indispensable they may be, ought to be discharged by agencies other than the typical academic department dedicated to the specialized activities essential to the training of the mind. This is the same attitude that has increasingly made the teaching of the oral and written use of the student's native tongue in many colleges an activity for which one department has been assigned responsibility and commonly one group of novice teachers are given this assignment. This practice has resulted in the misuse of the language and a consequent deterioration of the effectiveness of communication so pointedly criticized by Edwin Newman in his essay, *Strictly Speaking*.[18]

Just as one group of competent teachers in the English department, working cooperatively with the teachers in other departments, require the regular preparation of papers, and must be given and held to the responsibility of cultivating in students early in their college careers habits of precise and clear usage of language, other faculty members must assume the obligation of preparing students for lives of physical well-being and mental health. Any general education program which fails to include explicit goals related to these features of a satisfying and effective life must be considered seriously inadequate. It would be a revolutionary, but highly beneficial policy, if colleges required every able-bodied male and female student to take up one sport in the freshman year and continue to participate in it throughout the years he or she is a candidate for a degree. Indeed, the health of the nation and the

well-being of many of its citizens could be immeasurably enhanced if each student were given an examination at the end of each academic year, which included a review of their physical skills, their dietary habits, and their general health. The present resistance of students to any required educational experience is well known. If a faculty lays down no requirements in any subject, then of course this health program could hardly coerce students in one field. If, however, other subjects are made a part of each student's program, the health program is as essential as any other. Where not required, every student should be persuaded to make play and health practice part of his regular regime.

This policy of requiring that all students, except the severely handicapped, undergo an annual physical check-up is in sharp contrast to the prescription in many institutions of one or two years of physical education and none in the health sciences. The *reductio ad adsurdum* of this point of view appears in the policy of one institution which requires no specific instruction in the health sciences and only one year in physical education; this latter requirement is waived, however, if an examination of the student shows him to be in satisfactory good health. The health of the nation will not improve until it is assumed that the college has as much responsibility for cultivating habits of healthful living as for inculcating habits of clear, logical, and cogent reasoning. Faculties could profit from a study of the theory and practice of education involving the harmonious cultivation of human traits and faculties among the Greeks when their civilization was at its peak.

As in the case of other recommended curricular reconstructions, these changes would not involve prohibitively expensive additional units of instruction, a substantial augmentation of the teaching staff, or enlarged facilities in physical education. What would be required is a bringing together of already existing, but departmentally separated, instructional materials and personnel and a change in attitude toward their presently divided responsibilities, and a joining of forces in such a basic change in the health sciences and physical education.

A suitable program in the health fields would, however, necessarily involve the thoughtful and unreserved collaboration of competent persons in physiology, nutrition, biochemistry, biology, psychology, psychiatry, and physical education. Such a working group could identify the experiences inside and outside the classroom which all students should have, to understand the functioning of their own bodies and minds and to acquire the habits of healthful living that in many cases would persist throughout life. The concrete results of these interdisciplinary efforts should be a general course of instruction involving bodies of fact and theory from the related disciplines together with participation in various programs of intramural sports and individual physical activities.

The range of knowledge and skills required in such a program may be assumed to involve an inordinate amount of time of both teachers and students. As in the case of other units of instruction, this view rests on the common but mistaken assumption that the student must master all the details of the subject and its intricate development essential to the person who makes one of the constituent fields his professional occupation. Basic reorganizations of subject matter will be required and the faculty members involved will have to be given time to perform the necessary tasks, but there is no inherent deterent to reaching this goal within the resources of manpower and equipment already available on most campuses. The health and well-being of future generations justifies the effort.

Much has been said about the health benefits of regular exercise and proper diet, about the feelings of well-being which accompany a regimen of disciplined physical living. Everyone, but especially those charged with responsibility for designing a proper physical education unit throughout the whole range of education — including the adult years — must consider the personal and social benefits that could flow from such a program. One person who has envisaged the interplay between controlled physical activity and the character of our personal and social lives is George Leonard. Faculty members in philosophy, sociology, psychology, as well as in the departments of sports and physical education will find in his recent

book, *The Ultimate Athlete*, nourishing food for thought about the widely comprehensive goals and potential outcomes of organized games. The broad scope of his thinking about the consequences of our present misconceptions about the utopia to be ushered in by relieving man of physical activity and the use of machinery are vividly set forth in two quotations from his book. The first statement refers to the visionary hopes of most human beings with regard to their health and the realistic possibility of achieving these goals of good living:

> In every fat man, the saying goes, there is a thin man struggling to get out. If this is so, then every skinny man at times finds himself surrounded by the ghostly outlines of muscles and heft. And there must somehow exist an ideal physique for every one of us — man, woman, and child. Everybody that moves about on this planet, if you look at it that way, may well be inhabited by a strong and graceful athlete, capable of Olympian feats.
>
> Fanciful statements, but true. The athlete that dwells in each of us is more than an abstract ideal. It is a living presence that can change the way we feel and live. Searching for our inner athlete may lead us into sports and regular exercise and thus to the health promised by physical fitness organizations — and that might be justification enough. But what I have in mind goes beyond fitness. It involves entering the realm of music and poetry, of the turning of the planets, of the understanding of death.[17]

And he places education in its broadest context when he adds:

> Perhaps, then, it is not inappropriate that we look to the field of sports, physical education, and body for our transforming myth. Since the turn of the century, we have seen many signs of rapid human evolution, foreshadowings of transformation, as one supposedly unsurpassable physical limitation after another has been surpassed. There are few more satisfying confirmations of human potentiality than those found in the records of the modern Olympics, from 1896 to the present, and it sometimes seems that the sports section is the only part of the daily paper that contains good news.[18]

As Leonard says, good physical and mental health have social as well as personal consequences. Hence, those responsible for providing an adequate education for living in today's stressful world must make physical education in its broadest sense an essential element in the general education program. To do this, as some institutions have already done, will not necessarily deprive "profes-

sional sports" of their position in the life of the institution or its budget. It will require a larger investment of money, time, and energy in the games which can be engaged in throughout life such as golf or tennis. It will also require the development of the attitude among academic bodies that these are as important goals of higher education as the acquisition of cognitive knowledge and intellectual skills. The achievement of these goals should also result in changes in attitudes among the laity to the extent that they consider the education of their young people in good health practices and physical activity as important as cultivating intellectual abilities and training them for vocational competence.

General Education for Mature Adults

One other emerging aspect of our society requires to be treated in any reconsideration of the general education of our people. The number of individuals beyond the normal ages of full-time attendance at a college or university has markedly increased since the depression. As the higher birth rates of the forties and after are reflected in the advancing years among these groups there will be an increasing number of citizens of mature age. Moreover, the average number of years of their formal schooling has also risen sharply. By 1974, among our population over twenty-five the median years of schooling completed was 12.3.

Many more of our citizens have been stimulated intellectually to consider personal and social problems they would formerly have believed beyond their ken in our earlier national life. There is among us today a whole new company of prospective students among the adult employed or retired population. Moreover, pressing social, political, economic, and health problems are causing many mature men and women to seek additional education. Even among the employed the reduction of the workweek to forty hours or less has provided free time which many will not be satisfied to fill completely in playing golf or bridge. Many of these adults, to be sure, want to pursue instruction which will advance them in their vocation. It is the rare community that does not already have one or more institutions such as a community college which attempts

to satisfy these educational needs related to work. But an increasing number seek the kind of instruction that will help them understand the complex and swiftly changing world in which they live.

Add to the foregoing groups those who already hold bachelors' or even advanced degrees, but whose education was so narrowly specialized that they feel incapable of dealing with social issues and personal problems, and the demand for supplementary education later in life increases. Few of these prospective adult patrons of higher education will want or will be satisfied with the elementary instruction in the various disciplines designed to serve the needs of undergraduates intending to specialize in a given field of learning. Most adults want instruction that is so composed as to illuminate the major problems of the day. The type of general units of instruction described as fitted to the needs of undergraduates in the various disciplines can also provide the body of fact and theory and the exercise of intellectual abilities that will appeal to adults. A program of general studies will attract and hold those who do not seek a degree, but rather want the more immediate benefits of an education suited to their current purposes and interests.

Providing such programs of general education for adults, quite aside from its personal benefits to the student and advantages in the form of a better-informed society, could well be the economic salvation of institutions which in recent years have been losing their usual share of undergraduate enrollments. A number of adult students, unlike undergraduates, are employed in full-time, often highly remunerative occupations. Hence, they have the means to pay tuition fees and they do not require additional living quarters, food services, administrators, and auxiliary enterprises, which increase the cost of operation. Many institutions have established comprehensive services for adults. Not enough of these, however, have designed the general programs of instruction which will attract and hold an ever-larger company of adult students because they feel that their specific intellectual interests are being served. Any institution which sets about a reorganization of its offerings to meet the needs of undergraduates for a more complete, better-rounded general education ought to consider simultaneously the

launching of a related program for adults. One area of particular service that should be considered in such planning involves persons often referred to as *mature* adults, a euphemistic phrase referring to those who are usually over sixty-five and no longer employed.

Various professions have in recent years concentrated their attention on the aging, and periodically conferences have been called by federal and state governments to consider their peculiar problems and needs. Although these efforts of professional groups have often been concerned with such problems as health, housing, and recreation, others have increasingly attempted to provide educational programs especially suited to the needs and latent interests of those beyond the retirement age. The value of these efforts to the individual and their potential impact on the quality of American life can hardly be exaggerated. Americans are severely criticized by social scientists not only at home, but by other nationals, because of our callous treatment of those who after having made indispensable contributions to our social well-being for forty years or more are literally excluded from the stream of life. Contrary to a common impression among the uninformed, many of these older citizens cannot be counted among the mentally and physically disabled. Nor, in terms of the material needs of life, can they be classified as indigent or needy. Yet their lives are often empty, especially if, as is true of many, they have in their most productive years occupied positions that involved heavy responsibilities and daily contact with a wide range of interesting people.

Those who have made gerontological studies unanimously agree that the lives of many retirees are shortened by the sheer lack of activities both physical and mental which had earlier sustained their vitality. Paul Tournier, a prominent Swiss physician, in his book *Learn to Grow Old*, has treated at length the problems a human being inevitably encounters as he advances into the upper age brackets. Tournier is especially concerned with the trauma which occurs when active persons retire. He observes that the inactivity and emptiness of life that follows retirement often result in early death. For example, he relates the following tragic anecdote about the effect of retirement and the consequent social withdrawal:

There was also in Bourg-de-Four a lady who kept a much frequented tobacconist's and newsagent's shop. The judges and lawyers as they came out of the courthouse nearby used to stop to pass the time of day with her, in order to relax from the cold solemnity of the court. I myself never failed to exchange a friendly word with her. I heard the news of her retirement, too, followed a few months later by that of her death. It is quite likely that she, too, died from having retired after such a sociable career. Pastor Bremond . . . whom I mentioned above, exercised his ministry for a long time in Oullins, a suburb of Lyons, and an important French railway center. "Almost all my parishioners worked on the railway," he told me. "They were very proud of being able to retire at fifty-five, but they did not seem to notice that very few survived retirement by more than two years."

At a recent seminar at St.-Etienne, we were also told that civil aviation pilots are retired at the age of fifty, but that they almost all die during the following five years.[19]

And then he presents additional statistical evidence to the affect: "47.9 percent of men — almost half, that is — and 43 percent of women admitted in France, into aged persons' institutions, die within the first six months!"

Moreover, all these mature adults in the United States of whom there will be a continuing corps of millions, enjoy the franchise. If these over six million citizens were politically organized as members of a society such as the American Association of Retired Persons they could have a major impact on public policy. Those in younger age groups sometimes complain that their seniors typically cast their votes in terms of social, economic, and political conditions and world events which prevailed when they were younger, conservative votes that are based on a totally unrealistic interpretation or knowledge of the world as it is today. Without going into the validity of these political judgments, it can be said that without a sound general education the mature adult no less than the college student will often be voting on very important social issues in ignorance of the relevant facts. Unless they continue their education, they will not be aware of the finding of recent investigations by reliable scholars and the opinions of experienced personnel in matters of social polity which acutely impinge on their own lives and the well-being of our people generally.

In sum, then, for retired adults a well-conceived, comprehensive program of general education would achieve the same goals of public enlightenment on the issues of the day as comparable programs for youth. At the same time, it would provide stimulating intellectual activities and emotional enrichment for many who soon find uninterrupted leisure an unrewarding substitute for a life of responsible employment and active citizenship.

A number of efforts are now being made to enhance the opportunities for continuing education for mature adults. One of the most promising of these enterprises launched its activities in February of 1976 at the University of San Francisco. This educational enterprise will be known as The Fromm Institute for Lifelong Learning whose name reveals the dedicated efforts and research over a period of years of Mr. and Mrs. Alfred Fromm. The following statement of purpose reveals something of the kinds of persons the institute is designed to serve as well as the range of its services:

The Fromm Institute is one of a very few organizations associated with an institution of higher education that has clearly seen and interpreted the desire of many older adults to receive college-level instruction equal to that of 18 to 22-year-old learners. The University of San Francisco, an independent Jesuit university, recognizes, too, that post secondary institutions have an obligation to provide the same educational opportunities to its students over the age of fifty as it does to its younger students.

The Fromm Institute has come to the conclusion that older adult learners want many of the same things that their younger counterparts do with respect to educational pursuits. The main difference is that, for younger students part of the reward for pursuing college and university studies is in obtaining a better job, higher salary, or other material considerations, and for older students the reward is of an intangible nature concerned with intellectual satisfaction.

The Fromm Institute believes that one of the best ways to teach and motivate older adult students — those who are returning to higher education after a long absence and those who have no college level training at all — is to gradually re-expose them to learning by professors who will not only be master teachers but also "nonthreatening" as individuals. This is the principal reason that the institute places heavy emphasis on the employment of salaried emeriti faculty members. This innovative approach is not only unique to higher educational programs for older adults but also crucial to the success of the Fromm Institute.

The thought of being taught by persons younger than themselves discourages many older adults from attending classes of any kind, since they feel uncomfortable with them and believe that they have little to learn from them. Older people, particularly those with little formal education, feel the need to communicate with peers, in social and other contexts, what they have learned and experienced from simply living over a half a century. The Fromm Institute feels that the peer approach to learning will encourage two-way communication between professors and older students of all levels of formal training and, further, that it will prove its worth by ultimately encouraging many of the students to take courses in the regular degree program and to confidently attend classes alongside students many years younger than they are.

The employment of emeriti professors benefits not only the students but also the teachers themselves by providing them with the opportunity to extend their "usefulness" to society. The institute wants to permit its emeriti the freedom to pursue teaching and research projects in areas other than those in which they were engaged before their retirement. The pursuit of these new projects, which, in many cases, was either put aside because of commitment to the major area of interest or never attempted at all because latent talent was not given the chance to express itself, will intensify the professors' own joy of intellectual activity and therefore serve to inspire this feeling in the students. The Fromm Institute is convinced that the employment of emeriti professors will be advantageous to its students, to the teachers themselves, and to the university.

Procedures

To accomplish the major objectives it has set out for itself, the Fromm Institute plans to follow the steps described below:

1. The institute will offer its students the choice of studying for pleasure or for credit toward a degree, either at the bachelor's or graduate level. Beginning students will be given the classification of "visitor," which not only allows them the opportunity to take courses at reduced rates but also without the pressure of grading.
2. Initially, the institute will offer daytime courses in the following disciplines:
    a. Economics
    b. History
    c. Literature
    d. Philosophy
    e. Psychology

All courses will be taught at the university level and comparable to courses offered by the University of San Francisco. As soon as the students and the teachers have adjusted to each other and to the courses of

instruction, probably by the second year, they will mutually decide upon the exact curriculum to be offered. Older adult learners, especially, must be given a say in the courses they take.

3. Students from the Fromm Institute will be provided special counseling and tutorial services aimed at their motivational, emotional, and physical needs. They will have full access to professors and to library and research facilities, and they will enjoy "student" privileges in the dining hall, dormitory, and bookstore, and special rates with respect to travel arrangements. In addition, the classrooms utilized will be located near lounge and restroom facilities. Finally, the admissions procedures will be simplified so that, once an adult learner has summoned his courage to resume his education, he will not become frustrated by overly complicated and time-consuming policies and requirements.
4. The administration of the Fromm Institute consists of an independent board of directors of prominent educators, business men, professionals, and civic leaders, most of whom are older adults. Most importantly, the teachers will be salaried emeriti professors, who, it is felt, will be better able to motivate and relate to older adults thirty years removed from formal academic training.

This program for adults does not mention specifically the matter of interdisciplinary studies or general education. The concepts of both, however, are implicit in the foregoing description of the purposes and programs of the Fromm Institute. This enterprising effort by enlightened and service-minded laymen deserves study by other educators and institutions to the end that similar efforts may be attempted on a broader scale.

E. Norman Gardiner, *Athletics of the Ancient World,* 1930.

1. Jack Morrison, *The Rise of the Arts on the American Campus* (New York: McGraw-Hill Book Co., 1973), 1.

2. Ibid., 29-30. (Italics added.)

3. Margaret Mahoney, *The Arts on Campus* (Greenwich, Conn.: New York Graphic Society, Ltd., 1970), 22-23.

4. Ibid., 25. (Italics added.)

5. James Ackerman, "Education of Vision," in *The Arts on Campus,* 72-73.

6. Eugene Johnson, "The Forgotten Dimension in the Small Liberal Arts College" (St. Paul, Minn.: Bethel College, 1976), 3-4 (mimeographed).

7. Perry B. Johnson, "The Foundations Approach to College Physical Education: History, Status, and Future," *College Physical Education — The General Program* (Washington, D.C.: AAHPER Press, 1973), 35.

8. Ibid., 37-38.

9. William C. Adams and others, *Foundations of Physical Activity* (Champaign, Ill.: Stipes Pub. Co., 1970), 1.

10. Executive Office of the President: Office of Management and Budget, *Social Indicators 1973: Selected Statistics on Social Conditions and Trends in the United States* (Washington: Government Printing Office, 1973), 31.

11. Paul Dudley White, "How to Help Your Heart," *Parents' Magazine,* XXXIX (May 1964), 121.

12. G. A. Logan and W. C. McKinney, "The Service Program: A Challenge to the Intellect," *Proceedings,* National College Physical Education Association for Men (December 1962), 18. (Italics added.)

13. Paul Dudley White, "Exercise — What It's Doing for Ike and What It Can Do for You," *U.S. News and World Report,* XLIII (Aug. 23, 1957).

14. Paul Dudley White, "How to Help Your Heart," 125.

15. Letter to the author, Dec. 24, 1975. Dean Razor has assisted this author in innumerable ways in the preparation of this chapter both in supplying reliable sources of information and in critically reading the statement. Naturally, he is not responsible for the opinions expressed or the conclusions drawn by the author.

16. Edwin Newman, *Strictly Speaking* (New York: Warner Books, Inc., paper, 1975).

17. George Leonard, *The Ultimate Athlete: Revisioning Sports, Physical Education, and the Body* (New York: Viking Press, 1974), 3.

18. Ibid., 248.

19. Paul Tournier, *Learn to Grow Old* (New York: Harper and Row, 1972), 158-60.

VII. NOTEWORTHY GENERAL EDUCATION PROGRAMS

Although the momentum of the general education movement considerably slackened since the fifties, some institutions have preserved both its spirit and its substance. Moreover, abundant evidence exists of a widespread revived interest in interdisciplinary units of instruction. To provide interested faculties with a few examples of the present manifestation of this interest and its concrete expression, six examples of quite different college programs have been brought together in this chapter. Two others, at St. Olaf College in Minnesota and Warner Pacific College in Oregon, have been described in the author's earlier monograph, *Values, Liberal Education, and National Destiny*, copies of which are available at the Lilly Endowment. The author would be glad to receive descriptions of other such programs now in existence.

THE INTEGRATED PROGRAM IN HUMANE STUDIES AT KENYON COLLEGE

The program constitutes a single cohesive inquiry during three academic years, leading to the consideration of freedom and reponsibility in the modern world and the ethical issues students will confront in their different professions and careers. The work of the first year is concerned with *The Human Predicament in Nature:* the complex of issues that arise from the fact that we are both part of and yet different from the rest of nature.

The core of the program is a carefully selected series of readings drawn from the great classics of thought and literature. Each student will be expected to read, analyze, and reflect on these materials with the help of the faculty. While each of the faculty brings to the discussion a special expertise, the program is *not* a series of separate courses taught by individual professors. The heart of the experience will be the sense of common endeavor as instructors and students together explore the texts and issue they raise.

Students will not be presented with a uniform interpretation or position and may often find that the faculty members differ warmly among

themselves. It is hoped that, through encounter with different perspectives on the common ground of the assigned texts, participants will be able to develop coherent ideals and values relevant to their personal lives.

Students are expected to purchase copies of the required readings in specific editions. The College Bookshop carries a full stock, but those who can buy and read any of the texts in advance are encouraged to do so.

The Faculty (1975-76)

Professor Robert D. Burns (Biology)
Associate Professor William V. Frame (Political Science)
Professor Robert H. Goodhand (Modern Foreign Languages and Literatures)
Professor Richard F. Hettlinger (Religion), *Director*
Assistant Professor Marsha R. Schermer (Philosophy)
Associate Professor Frederick Turner (English)
Secretary: Mrs. Patricia G. Slate

The offices of the faculty are in Timberlake House on Park Drive, opposite the Chapel. Timberlake House also contains a seminar room where all seminars of the program are held, and a lounge for the use of students and faculty. The equipment and remodelling of Timberlake House and the inauguration of the IPHS were made possible by a generous grant from the Lilly Endowment, Inc.

Each student in the program has one of the IPHS faculty as faculty advisor, responsible for his or her general academic program (both in and outside the Integrated Program) and available for counsel on any matter. Each faculty member holds regular office hours for conferences. Faculty members may also be reached at home in any emergency situation.

Besides being responsible for the teaching work of the program, faculty members meet together each Monday evening for their own seminar to discuss the material currently under study. Each of them (except the director) also offers one course each semester in his or her particular discipline.

The Forum

Each week all students and faculty in the program meet on Monday, Wednesday and Friday mornings from 10-11 a.m. in Philomathesian Hall (Ascension Hall) for the Forum. At these sessions faculty members introduce the texts and identify some of the major questions they raise. On some occasions faculty members join in panel discussions, on others visiting speakers may be heard, and on others issues raised in seminars are discussed.

Attendance at the Forum, except for sickness or emergency, is required since these presentations are fundamental to the discussions of the texts in seminars and tutorials.

Seminars and Tutorials

Each week every student participates in a seminar with about 12 members under the leadership of a faculty member. Every other week he or she has an individual tutorial session with the same faculty member. The faculty member who is the student's faculty advisor is also the tutor for the first six weeks of the fall semester. For the remainder of that semester the tutor is another faculty member. During the second semester each student is under the tutorial guidance of two other faculty members in turn. A student thus has a continuing relationship throughout the year with the faculty member who serves as faculty advisor, as well as the opportunity to work closely with three other faculty members.

Each week every student prepares a written presentation *either* for the seminar *or* for a tutorial. Presentations for the seminar (500-750 words) are directly related to the interpretation of the text under study. Those for a tutorial (1000-1500 words) take up a particular theme of the material or compare the ideas therein with previous discussions.

In addition to seminars and tutorials, field trips and laboratory exercises relevant to the theme of the program are arranged in the fall and spring.

Seminars involving students without faculty participation are scheduled for those interested.

Courses Outside the Program

Normally a student takes one other Kenyon course in each semester (or a one-unit year course) in addition to the first year of the program. In very special circumstances it may be appropriate to take two courses outside the program. The choice of this course or these courses is made in consultation with the faculty advisor during orientation.

The Program and the Major Department

The general degree requirements of the college include four years of undergraduate work, at least two years of which (including the senior year) must be at Kenyon. For graduation the student must earn sixteen units of credit in which a satisfactory average is achieved, complete a major program including a senior exercise, and satisfy diversification requirements.

The number of units of work required by departments of their majors varies from four to seven, but no more than seven of the sixteen units required for graduation may be earned in one department. Thus a student at Kenyon takes at least nine and perhaps as many as twelve units of credit outside the major department. The Integrated Program in Humane Studies constitutes six of these units: three in the first year, two in the second year, and one in the senior year.

Although the program is not a department of the college, and it does not fulfill the requirements for a major, it should prepare a student for work in any major field. *Those who have definite academic plans should recognize that the work of the Integrated Program is entirely consonant with virtually any professional goal.* Students enrolled in the program include some who intend to go on to law school or medical school or to work in journalism or film. Participants include potential majors in Anthropology, Art, Biology, Chemistry, English, History, Modern Foreign Languages, Philosophy, Physics, Political Science, Psychology, Religion and Sociology.

Some science departments advise a student to take two units of credit in the science division in the freshman year. Those planning to major in a science should consult the department concerned as well as their faculty advisor.

Diversification

Candidates for the Kenyon degree must earn at least one unit of credit in at least five departments which are in at least three divisions. The divisions and departments are:

Fine Arts: Art, Drama, Music.

Humanities: Classics, English, Philosophy, Religion, Modern Foreign Languages and Literatures

Natural Sciences: Biology, Chemistry, Mathematics, Physics, Psychology

Social Sciences: Anthropology and Sociology, Economics, History, Political Science

The work of the program counts towards the fulfillment of these diversification requirements for graduation. The first year of the program may be reckoned as the equivalent of a year's credit in any three of: English, Philosophy, Modern Foreign Languages and Literatures, or Religion. It is expected that departments in other divisions will recognize the work of the second year of the Integrated Program as fulfillment of diversification requirements.

The departments of English and Philosophy which have introductory courses (English 1-2, Philosophy 11-12) as prerequisites for other courses accept the first year of the program as fulfilling these requirements.

Credit and Grading

Although the program constitutes a single academic enterprise, participants register in *Humane Studies 1, 2; Humane Studies 3, 4;* and *Humane Studies 5, 6* and receive three separate units of credit and three grades at the end of the academic year.

At the end of the first six weeks of the first semester the student receives an evaluation from his or her faculty advisor (who has acted as tutor for this period). This does not (except in circumstances mentioned below) form part of the student's permanent record. At the end of the first semester the first grade is given by the tutor under whom the student has worked for the second part of that semester. The second grade is given by the tutor for the first eight weeks of the second semester. The third grade is given by the tutor for the second part of the second semester. This grade takes into account the student's achievement in a concluding project intended to test his or her ability to apply the understanding gained in the work of the program to the study of a major literary work.

The college requires that tentative grades (which do not form part of the student's permanent record) be reported at the end of the first semester of the year courses. For this purpose students in the Integrated Program are assigned a tentative grade based on the evaluation of the two faculty members under whom they have worked in the first semester.

Course Changes

During the first two weeks of the fall semester students may make changes in their course selections (including the Integrated Program). Such changes require the use of Course Change Cards available at the Registrar's Office. After the two-week period for changes and through the last day of the first semester all changes in course selections or status require successful petition of the Committee on Academic Regulations.

After the last day of classes of the first semester and through the first two weeks of classes in January, students may drop year-courses (including the Integrated Program) via a card in the Registrar's Office. Any who withdraw from the Integrated Program at this time receive one and a half units of credit and grades for the work completed in the first semester. In such a case the evaluation made by the Faculty Advisor-Tutor for the work of the first six weeks of the first semester is recorded as a grade for a half unit of work. Entry into the second semester of a year course (including the Integrated Program) is prohibited by college regulations unless the student has completed the first semester or its equivalent, or successfully petitions the Committee on Academic Regulations. Such a petition must make clear why the student thinks himself or herself entitled to special consideration. It must be accompanied by the recommendation of the Faculty Advisor and of the faculty of the program.

Future Years in the Integrated Program

Human nature, as it is determined by our animal inheritance and the external world, establishes certain parameters for the exercise of freedom and responsibility. But our capacity to act ethically is also affected to a

great extent by the cultural and social environment in which every individual exists. In the second year of the program students devote half of their academic time (two units of credit) to the study of this aspect of the human situation. This course on *The Human Predicament in History* is organized on lines similar to those of the first year. Emphasis is laid on the relevance of the past for the understanding of the present, underlining the subtheme of the whole program: *Continuity and Change*. An attempt is made to distinguish what is artificial or "added" from what is natural or "given" and the relationship of the two is studied in order to bring into view the foundations of contemporary Western culture.

In the senior year a unit of credit (¼ time) is earned in a year-long seminar on *The Human Predicament in the Modern World*. This course considers the issues of freedom and responsibility, building on the studies of nature and history in the first two years. Questions arising from the student's specialized study in a major field are discussed, and attention is given to specific ethical issues that may be confronted in different professions and careers.

INTERDISCIPLINARY STUDIES AT NORTH CENTRAL COLLEGE

1. North Central College

North Central College is a coeducational liberal arts college in Naperville, Illinois. Founded in 1861, it is affiliated with the United Methodist Church and devoted to Christian values in a context of respect for all honest beliefs. It has been nationally cited for the percentage of its graduates earning the doctoral degree. Its current student body is near 1,000.

2. Beginnings of Interdisciplinary Emphasis

In 1960, North Central College had 24 distinct academic departments, all autonomous. Like most colleges then, it was patterned after the graduate university model of departmental specialization. But the atomistic administrative structure of the departmental system steadily blocked the increasing efforts of the faculty to create a liberal arts process which would combine specialization with a passion for integrative learning. Against much inertia, the first three interdisciplinary courses took shape during the 1960s: The Nature of Science, Introduction to Creative Arts, and Discovery (an inquiry into the emergence of new perspectives in whatever field). Their reception by students, together with the satisfaction experienced by participating faculty, set the stage for the next step in creating an interdisciplinary curriculum.

3. The Phoenix Curriculum of 1971

In 1970 faculty and students joined in a full-scale rethinking of the philosophy and structure of North Central College education, under the

rubric "Project Phoenix." The academic department as an autonomous entity was abolished. Strong divisional structures were designed in which the old departments appeared as "disciplines" — a term which stresses the process of learning rather than its territories. Much broader discussion of curricular issues then became the rule; and it was not long before colleagues of different fields began to combine their interests.

Governance was widened to encourage the initiative of junior faculty and of students. The concept of required courses gave way to a pattern of educational objectives which could be filled through various disciplines. Divisional majors were made possible, as well as individually planned transdivisional majors. A half-dozen faculty colloquia each year stressed the commonality of intellectual endeavor.

A most important administrative action was the adoption of curricular maxima whereby each academic discipline was limited to a certain number of courses — thus guaranteeing economy and compactness of offerings. The excess of innovative energy then flowed into divisional and all-college offerings (for which room had been planned).

4. *The Efflorescence of Interdisciplinary Effort*

Thus the college had chosen both intellectually and administratively to fuse the specialization and integration of knowledge. A faculty which was encouraged to cross boundaries steadily developed cooperative and integrative courses until by 1975 fully 10 percent of the curriculum could be called interdisciplinary. A partial course listing follows, arranged in order from the natural sciences to the humanities:

Man's Physical World
Nature of Science I and II
Philosophy of Science
Chemistry-Physics I and II
Primate Ethology (Biology and Psychology)
Environment and Man (Biological and Social Sciences)
Environmental Studies (an interdisciplinary major)
Social Sciences Resources
Business and Society
Operation of a Great City
Metropolitan Studies (an interdisciplinary major)
Cultural Ecology
Emerging Nations
Psycholinguistics
Introduction to Language and Linguistics
Black Literature
Word Derivation and Structural Patterns
Introduction to the Arts

Culture of a Great City
Music-Theatre Workshop
Discovery I and II
Current Interdisciplinary Studies (one-time courses to address topical issues which cut across traditional boundaries)

In 1975 the college was granted support by Lilly Endowment for a four-year sequence of experimental courses leading from a consideration of personal values to a value-oriented study of the working world. Its interdisciplinary character may be suggested by the title of the freshman segment: "Values and the Valuable Community."

5. The Continuing Base

The new curriculum is seen not as a "trendy" collection of innovations, but as a return to roots. The respect for specialization remains, in the conviction that mastery in a given subject can deepen the student's respect for all subjects. The three central objectives of the B.A. — Exploration, Foundation, Concentration — correspond to the venerable trio: electives, general education, and major. What they revivify is the sense of the unending diversity and integrity of learning — an intuition which in the old aggregation of requirements and departments had become seriously fragmented.

THE "CORE" CURRICULUM AT SAINT JOSEPH'S COLLEGE[1]

I. Introduction: Objectives of the Core Program

Saint Joseph's College adopted its Core Curriculum because it was seen to be a better way to achieve the goals and purposes of the institution, a Catholic liberal arts college, than the more traditional approach to general education. Core is integrative, rather than distributive, in its structure. Core gives the entire student body, and as many members of the faculty as possible, a *common experience* in reflecting on man, his situation, civilization, and culture, his achievements and problems, his meaning and purpose.

The switch to Core demanded radical changes in schedules, in departmental offerings, in course assignments, and in many other long-held policies and ideas. But what was asserted most emphatically in the change-over was that the institutional commitment to Core expressed the judgment of the whole Saint Joseph's College community that general education is at least as important as the student's major. The structural reminder of this commitment is the central role which the Core Program fills in the college's course offerings throughout all four years of the normal bachelor's program.

In order to offset the trend toward hyper-specialization or vocationalization in most of our American higher education, Core is strongly generalist and humanistic. It emphasizes the project of becoming a "self worth being," of leading a genuinely human existence, as the basic issue of liberal education. Though the content of each semester of Core varies, the program maintains an overall common and constant concern for human values, a concern which either is carried over from Core into other courses by both students and faculty or reinforces the humanistic perspectives already present in those courses.

Finally, any number of more specifically philosophical positions are implied in either the interdisciplinary or the personalist commitments of the Core Program. Core stands against the depersonalization of man that is the bent of the reductionist type of thinking of so many contemporary intellectuals. The program maintains an openness to insights into the nature of man and the human situation that come from a whole range of academic disciplines and methods. No method which can shed light on human meanings and values is theorized out of existence or into nonsense on an *a priori* basis. The traditional approach of the liberal arts is broadened to welcome the fruits of the studies of modern psychology, sociology, and other sciences of man. But what Core strives to do is to inform with a common purpose the whole mass of conflicting interests spawned by the hyper-specialized curricula of the mainstream of contemporary higher education.

II. Structure of the Core Program

A. In general

The Core Program replaces what used to be a 54-credit, mainly lower level and distributive approach to general education with a 45-credit, integrative and interdisciplinary set of semester programs very evenly spread out over the four years of college education. In place of a required number of courses from several separate departments, Core involves a 6-credit interdisciplinary course in all but the last of the eight semesters usually taken by the student.

The following table shows the simple structure and rhythm of the Core program:

Freshmen:	Core 1—The Contemporary Situation (6 credits)
	Core 2—Hebrew and Graeco-Roman Heritage (6 credits)
Sophomores:	Core 3—The Middle Ages (6 credits)
	Core 4—The Modern World (6 credits)
Juniors:	Cores 5 & 6—Foundations of Science (6 credits)
	Cores 7 & 8—Non-Western Studies (6 credits)
Seniors:	Core 9—Toward a Christian Humanism (6 credits)
	Core 10—Christianity and the Human Situation (3 credits)

B. The overall unity of the program

It is important to stress the overall integration of the segments of Core into a single general education program which has a very definite rationale and developmental unity operative throughout all four years. The following descriptions clarify the overall thrust of the Core Program.

The first semester of the freshman year begins with "The Contemporary Situation" because the main objective given to Core 1 is self-discovery and self-assessment. The student is invited to take inventory of his personal and our communal problems and resources: As a young man or woman in twentieth century America, what outlooks and values have I adopted? What can we reasonably expect to achieve — answered differently from Kurt Vonnegut's "Fourteenth Book of Bokonon" — in the remaining years of this century? What are the prospects and hopes for creating a meaningful personal existence and a just society?

The time span allotted to Core 1 extends back to 1900, not for arithmetic convenience or to relieve other cores of some years of content, but to attain a very specific purpose. The student's edifice of meaning was constructed under the influence of his parents and grandparents, as well as that of peers, teachers, and so on. By becoming acquainted with the events and hopes and crises of those immediately ancestral generations, the student can discover the impact of the past on his living present, the relevance of history to human existence. This is not approached in service to any particular philosophy of history, whether spiral or cyclical or whatever, but in terms of the simple facts of life that our meanings are shared meanings and that our existence is an historical existence. The complement to the future-looking dimension of hope in human existence is the past-regarding dimension of memory. With the establishment of this dialectic between hope and memory, Core 1 opens the student up to the historical sections of Core in the following three semesters. Both in Core 1, however, and in the largely historical sections of Core to follow (Cores 2, 3, and 4), a whole range of academic disciplines — philosophy and theology, the natural and behavioral and social sciences, literary and artistic expression — participates in the attempt to shed light on the meanings and problems of Western man.

Cores 2, 3, and 4 — the second semester of the freshman year and the two semesters of the sophomore year — seek to encounter the origins of Western civilization and follow its subsequent development. How have the Hebrews, Greeks, Romans and early Christians laid the foundations of what we call "the West" (Core 2)? How have Graeco-Roman and Judaeo-Christian sources, albeit over centuries of development and evolution, contributed to the world we now inhabit?

In Core 3, "The Middle Ages," the manner in which the cultural values of the ancient world were preserved and modified in the years from 100 to 1600 in the West is studied. The particular approach taken in this Core, because it is individual men who make history and build civilizations, is one which focuses on individual persons who contributed in a very special way to the cultural evolution of the West, leading up to the emergence of what we (somewhat chauvinistically) call "the modern world." In ending with the Renaissance, Core 3, from one point of view, closes a cultural cycle with Core 2 in that the Renaissance looked backwards to the origins of the West in ancient Greece and Rome; but, from another point of view, the seeds of the modern world and rumblings of the radical changes about to occur are there too.

The modern world is approached, in Core 4, in an at least partly dialectical fashion by studying the interplay of currents of thought from 1600 to 1900. The Baroque, the Enlightenment, the conflict between Romanticism and Realism, the Revolutions, the Age of Progress — especially the images of Man, of Nature and of God that go along with each of these — such is the complex material of Core 4. Overall, however, the achievements and disappointments of those 300 years do exhibit a certain logic of development which makes understandable the ambivalence and trepidation with which Western man entered the twentieth century. Thus, at the end of Core 4 the student has worked his way, with enriched historical understanding and developed critical acumen, back to the starting point of Core 1.

Though Cores 1 through 4 did attempt to deal with 4,000 years of Judaeo-Christian tradition and 2,800 years of Western culture, there is still a greater challenge to the imagination and sensitivity of the student to come in the junior year. Non-Western Core (Cores 7 & 8) transports the student out of the West in order to invite him to meet and to learn to appreciate fellow human beings who have created cultures quite different from his own. The great cultures of India, China, Africa, and Japan, whether in terms of complementarities or contrarieties or correctives, have much to teach us, in spite of our boasts of Western superiority.

In addition, the "Story of Man" that science tells, in the concurrent Core Science segment (Cores 5 & 6), is a story which speaks of billions of years of cosmic and biological evolution and of a cosmos of fantastic dimensions, but which is still man's home. If Cores 2, 3, and 4 put us in touch with our cultural roots, Core Science reveals how intimately our human lives are connected with all of life and with basic cosmic processes: our cosmic and biological roots. The two programs of the junior year do, however, converge — whether by political, economic, ecological, metaphysical, or religious paths — on the reality of the oneness of the family of man.

Finally, the first three years of Core (Cores 1 through 8) can be regarded as more analytic than anything else, in the sense that they provide information about, perspective on, and appreciation of all things human. The senior year proposes to tie together all of the preceding materials of the Core Program in a synthesis that is deeply and thoroughly Christian. Core 9 works at such a synthesis in terms of theory and principle, whereas Core 10 applies those principles in a spirit of Christian responsibility in a world where man is more and more assuming conscious and deliberate control of the course of evolution.

C. *Progress from Core 1 through Core 10*

Another rather interesting perspective on the total Core program lies in the broadening and deepening of awareness that occurs as the students move from one semester to the next. Without restricting individuals to this pace of rhythm of development and recognizing sadly but realistically that it does not work for everyone, the focus of the content of the Core segments and the invitation to value commitment do significantly grow from semester to semester. In Core 1, the focus is the "self" in twentieth century "America" (although the limitations of this focus are revealed in the final sections of Core 1); Cores 2 through 4 broaden that perspective to include the origins, development and recent condition of "The West"; with the junior year of Core the student is invited to cope with the concepts of "cosmos" and "Spaceship Earth"; and in Cores 9 and 10 questions of ultimate meaning and deepest commitment are treated, the "Alpha and Omega" of human existence and "the one thing necessary" of the New Testament.

III. Illustration of the Interdisciplinary Approach Used in Core

The preceding sections of this description of the Core Curriculum at Saint Joseph's College have clarified the overall unity of this general education program, but they have said little, at least explicitly, about the interdisciplinary nature of core. To provide a full account of the interdisciplinary approaches used in core would be a lengthy task, but two of the segments of core can serve very well as illustrations.

There is a definite thematic development which takes place throughout the two semesters of Science Core (Cores 5 and 6), offered concurrently with non-Western studies (Cores 7 and 8) in the junior year, and on into Core 9 in the first semester of the senior year. Science Core recounts "The Story of Man" as told by science, and Core 9 picks up precisely where Science Core leaves off and goes on to ask questions dealing with the ultimate meaning of man, of religion, and of Christianity.

I. INTRODUCTION

A. What is "science" and what does it have to do with Core? (Dr. Nichols, Philosophy)

B. How does science go about doing what it does?
1. Scientific method (Dr. Nichols, Philosophy)
2. Mathematical models and scientific laws (Fr. Gilbert, Mathematics)

C. Science and culture, both East and West (Mr. Brinley, Philosophy)

II. THE STORY OF MAN (as told by science)

A. COSMIC EVOLUTION

1. Basic forces in Nature
   a. Mechanical forces (Dr. Chesak, Physics)
   b. Light (Fr. Ruschau, Physics)
   c. Electric and magnetic forces (Dr. Chesak, Physics)
2. Basic structures in Nature
   a. The atom (Dr. Chesak, Physics)
   b. Quantum theory, (Fr. Ruschau, Physics)
   c. Radioactivity and the nucleus (Fr. Ruschau, Physics)
3. From the atom toward the cell
   a. Chemical bonds and the shape of molecules (Dr. Rodia, Chemistry)
   b. Carbon compounds (Dr. Rodia, Chemistry)
   c. Macromolecules (Dr. Rodia, Chemistry)
4. Preparation of the earth for life
   a. The birth and death of stars (Dr. Sleeman, Earth Sciences)
   b. The solar system, planets, and life (Dr. Sleeman, Earth Sciences)
   c. Origin of the atmosphere (Dr. Sleeman, Earth Sciences)

B. BIOLOGICAL EVOLUTION

1. Emergence of life
   a. The origin of life (Dr. Mehall, Biology)
   b. The cell (Dr. Mehall, Biology)
   c. The DNA-RNA protein system (Dr. Mehall, Biology)
2. Challenge: evolution of the environment
   a. Orogeny and glaciation (Mr. Davis, Earth Sciences)
   b. Continental drift (Dr. Sleeman, Earth Sciences)
3. Response: phylogeny, evolution of species (Dr. Mehall, Biology)

4. The emergence of man
   a. Dr. Leakey and the "dawn of man" (Dr. Kenny, Anthropology)
   b. Introduction to human ecology (Dr. Mehall, Biology)
   c. Physical anthropology (Dr. Sleeman, Earth Sciences)
   d. Glaciation and adaptation (Dr. Sleeman, Earth Sciences)
   e. Man as tool-maker and symbol-user (Dr. Kenny, Anthropology)
   f. Evolution and creation (Dr. Nichols, Philosophy)

C. CULTURAL EVOLUTION

1. Man fills the Earth!
   a. The Neolithic Revolution (Dr. Chesak, Physics)
   b. The varieties of man (Dr. Kenny, Anthropology)
   c. Population control in animal species (Dr. Jones, Biology)
   d. Control of human population (Fr. White, Economics)

2. Technology: progress or ruin?
   a. Air and water pollution (Dr. Mehall, Biology)
   b. Pesticides (Dr. Rodia, Chemistry)
   c. Synergistic effects of pollution (Dr. Semonin, Illinois Water Survey)
   d. The energy budget (Dr. Chesak, Physics)

3. Man as "explained" (totally?) by science
   a. Physiological bases of behavior (Dr. Palya, Psychology)
   b. Basics of computer operation (Dr. Verbrugge, Computer Science)
   c. The cybernetic model of man (Dr. Palya, Psychology)
   d. The science of human behavior (Dr. Kenny, Anthropology)
   e. A response to Woolridge (Mr. Brinley, Philosophy)

III. THE FUTURE???

A. Genetic engineering: shall we remake ourselves?

1. Genetic manipulation and chemotherapy (Dr. Mehall, Biology)

2. Film: "Assault on Life"

B. Management of "Spaceship Earth"

1. International economics of resources (Fr. White, Economics)

2. Respect for life and reflections on junior Core (Dr. Nichols, Philosophy)

A. Cores 5 and 6: The Foundations of Science

The central theme of the entire Core Program is *man*. Science Core contributes to this theme in two important ways. Science, first of all, is best understood as a human undertaking, a creative activity of man in pursuit of specifically human values. Thus science is human or humanistic to its very roots. Secondly, Science Core contributes to a vision of man by exposing what science has come to know about man and his place in the physical universe. The major portion of the two semesters of Science Core is given over to the telling of "The Story of Man" that modern science has put together.

The outline of the content of the two semesters of Science Core shows at a glance its interdisciplinary make-up. The topics and the lecturers are drawn from no fewer than ten different academic departments: philosophy, mathematics, physics, chemistry, earth science, biology, anthropology, economics, psychology, and computer science. But these topics are tied together into a well-integrated program.

The three main subdivisions of the two-semester, six-credit program are: an introductory section which discusses the nature of science and scientific method; the long and centrally important section on science's story of man; and a concluding section which projects problems and solutions into the short and long-term future of mankind.

"The Story of Man" that is the principal focus of Cores 5 and 6 follows an evolutionary schema which is portrayed as developing through ascending phases of cosmic, biological, and cultural evolution. There is, however, a definite change of tone from one semester to the next. In Core 5, in order to permit the sense of *wonder* that is the fundamental motive for the doing of science to predominate, little attention is given to the problems which face contemporary man. In Core 6 all those *problems* are faced squarely and honestly. In fact, twentieth century man faces issues of survival as critical and as radical as those confronted at any time in man's previous existence, perhaps even more so in view of his tremendous numbers and the demands which his style of life places on Spaceship Earth.

At the end of Science Core, there is a deep sense of ambivalence. The major demonstrated point is the unity of mankind and life and cosmos, but the final meaning of this unity is left as a question. On the one hand, there are arguments which urge the conclusion that peace and justice and brotherhood among all men, the response on a specifically human level to mankind's biological unity, are the only guarantees of survival on Spaceship Earth. Yet there are, on the other hand, intimations that the unity of cosmos-life-mankind may entail loss of the uniqueness and dignity of the human person.

B. Core 9: Toward a Christian Humanism

The second semester of Core Science (Core 6) centered about three major readings: Boughey's *Man and the Environment*, Woolridge's *Mechanical Man*, and Levin's *This Perfect Day*. They focused on man, science, and society, and contained the common claim that the problems confronting contemporary man can best be solved if we strip ourselves of the ancient prejudice that we men are somehow special cases in the universe, endowed with "freedom and dignity" by which we transcend the other beings in the environment. Actually, we have no more reason for existing than any other species, Boughey informs us. Only if we accept the scientific view of ourselves as complex mechanisms not essentially different from other things in our universe, will we be able to handle our problems with the objectivity appropriate to them, Dean Woolridge claims. And Levin sketches a manipulated utopia where all but a few eccentrics are socially concerned, healthy, contented and scientifically progressive. We add to that picture, at the beginning of this semester, psychologist B. F. Skinner's *Walden Two*.

Core 9, however, develops a contrasting view of things and is organized around a different thesis, namely that there is a set of questions to which any Christian view aimed at today must address itself: (1) Is man in principle completely explainable by a scientific approach which closes the door to any explanation that goes beyond the observable? (2) If in principle man does transcend scientific explanation, is there a transcendent beyond man to which man is beholden? Or are those references to transcendence that we find in religious individuals and institutions merely illusions sustained by a need to escape oppressive conditions or to underpin the social order? (3) If religion and religious experience are not simply useful fictions that have become outmoded by scientific advance, if there is an actual transcendent, is there a peculiarly Christian mode of relation to the transcendent? If so, can it be achieved by active participation in the building up of the secular city alone, or does it require in addition the practice of inward prayer?

Notice that some of these questions can be related in terms of the general concepts of *immanence and transcendence*, depending upon whether the answers allow us to remain within (from the Latin *in* and *manere*) a certain sphere of evidence or lead us to climb beyond (Latin *trans* and *scandere*) to another sphere. The relations between immanence and transcendence involved in each of the basic questions lead us to certain thresholds where the transcendence of an earlier level becomes the immanence of another. Thus, if we admit that man in principle transcends, as observer and thinker, the observable objects he thinks about in science, we may still remain within the immanence of a world view

without a transcendent as in neo-Marxism and in certain popular forms of existentialists thought. Religion in these views would be explained away rather than explained. It would simply be a useful or useless individual or social fiction. Or if we admit a transcendent, we might consider the only relevant relation to Him one of immersion within the secular by human relations with our fellow men.

In Part One of Core 9, we have the question of *man* that gives rise to the Battle for Human Transcendence. There is first of all a position of extreme immanence, a scientific reductionism exemplified today especially by the behavioral psychologist B. F. Skinner who considers himself a descendent of the Enlightenment notion of universal mechanism and who rejects all appeal to anything human or divine which allegedly transcends such mechanism. For Skinner, the notions of "freedom and dignity" are prescientific and must themselves be transcended. This position has been resisted tooth and nail by those who believe in a transcendent element of man and in the universe as a whole — those, that is, who believe in the soul and in God in Whose image the soul is said to have been made. But it should be underscored that not everyone who believes in a transcendent element in man over other forms thereby also believes in God. Witness the most popular of the Existentialists and the new Marxists. The battle at this level has to do with those who believe that man is wholly immanent in nature, and those who believe that man at base transcends the mechanisms of nature. Physicist Michael Polanyi has been selected as the representative of an antireductionist position developed on the basis of an alternative philosophy of science.

Part Two deals with the question of a transcendent beyond man. Here we face the universal phenomenon of religion, studying it first of all from the point of view of the functions, psychological and social, which it has often been used to fulfill. Freud presents the position which, though explicitly designed to reduce religion to illusions and man to a mechanism, yet remains ambiguous in its results. Sociologist Peter Berger goes beyond Freud and, while maintaining human freedom, opens the door to the possibility of a transcendent beyond man. We follow the direction toward transcendence by raising the question of whether there is some sort of transcendent reference beyond psychological and social functions. Existentialist philosopher-theologian Paul Tillich considers the problem of "the heart," the center of anxiety and Ultimate Concern, that opens out to what he calls "The Ground of Being," which undercuts the tension between a transcendent "Wholely Other" and immanent pantheistic divinity. A work by Sam Keen attempts in personal, autobiographic terms, to found relation to the divine in a kind of open piety for persons and

things and in a recovery of the felt sense of his own bodiliness. His "god" tends more in the direction of an immanent pantheistic divinity.

Part Three, though treating the problem of Christian immanence and transcendence, is basically organized around the themes of Incarnation, Death and Resurrection, Ascension and Worship. Three statements on incarnation are considered: Sam Keen's concluding chapter on "visceral theology," an historical account of *The Ascent of the Female* by Glynis McManamon and an article "On the Theology of the Incarnation" by Karl Rahner. The incarnation theme pervades the work by Teilhard de Chardin on *The Divine Milieu*, prolonging the presence of Christ through the divinization of all human activities. The death and resurrection theme is expressed both in Teilhard's chapter on the divinization of our passivities and in Joseph Bayly's personalized statement in *The View from a Hearse*. The ascension theme points from the Lord who judges history to the life of the community to be judged, and focuses on the themes of service and worship. Teilhard's concluding chapter, Robert McAfee Brown's *Religion and Violence*, and the Latin American bishops' Medellin Conference documents on peace and poverty attend to these themes. Finally the recent enumenical "Hartford Appeal" refocuses our general themes of Christian immanence and transcendence by pointing out the dangers in recent popularizations of faith.

Finally, the program for Core 9 was designed in such a way as to refer back to all the previous Core readings and to relate to as many of the major and minor programs as possible. This was done both through the selection of the readings and through raising explicit questions throughout the syllabus that relate to earlier readings. The parallels can be seen by incorporating all of the previous descriptions into a comprehensive diagram:

1. The Nature of Man	
a. Human immanence: Man as Mechanism (Skinner)	Psychology Cores 5 and 6 (Science)
b. Human transcendence: Man as Spirit (Polanyi)	History, Physics, Biology Psychology, Sociology, Political Science, Philosophy
2. The Nature of Religion	
a. Religion as immanence	
i. Religion as psychological illusion (Freud)	Psychology
ii. Religion as world-maintenance (Berger)	Sociology

b. Religion as transcendence	
i. Ultimate concern (Tillich)	Philosophy, Theology, Psychology, Cores 1 through 4
ii. Reverence and play (Keen)	Literature, Physical Ed., Psychology, Education
3. The Nature of Christianity	
a. Incarnation (McManamon, Rahner, Teilhard)	Cores 3 and 4, Theology
b. Death and Resurrection (Bayly, Teilhard)	Religion
c. Ascension and Judgment (Brown, Medillin, Hartford)	Theology, Sociology, Economics, Political Science

Our approach has attempted to set the stage for developing the *integrative habit*, the habit of linking together the many facets of human experience as we encounter them and as we read reports of them. And here we are trying to encourage that habit of centering our attention upon the place of God in human experience. It is our contention that the development of the integrative habit is the central discipline of the educated man, and the application of that habit to the problem and mystery of our relation to God is the central discipline of the educated Christian.

The opening article by Michael Novak, "God in the Colleges," sets this whole approach within the context wherein it will now occur, that is, within the college life. He argues forcefully that if "God is dead" in the university as well as in society in general, He will only "rise again" when humane vision returns to the center of the academic scene too long dominated by preoccupation with "making a living" and with "subduing nature." The path to the recovery of God is through the recovery of man, and that is the path that we have laid out in Core 9.

IV. Conclusion

Saint Joseph's College is definitely committed to the Core curriculum and the humanizing and liberating educational experience which is represents. Core expresses this college's manner of structuring a liberal arts education which respects both the concern for human values of the liberal arts tradition and the career preparation and specialization which the contemporary world demands of college graduates.

THE STANFORD UNIVERSITY PROGRAM IN VALUES, TECHNOLOGY, AND SOCIETY

Stanford's Program in Values, Technology, and Society (VTS) has the primary aim of improving and broadening general education for a

wide variety of college students. Courses focus on the interrelations of technological change, social institutions, and human values. Consequently, VTS classes provide students opportunities to grasp the significance of their own intellectual interests in a wider framework of ideas and activities.

Secondary and future objectives include: education of students in comprehending essential technological institutions in society — for example, energy systems and information-handling systems — creation of a new type of multidisciplinary undergraduate major, and preprofessional preparation of students for further study in such areas as social-technical analysis, policy studies, and urban management.

Planning for the VTS Program began among approximately 15 faculty members from a wide range of disciplines in 1970-71; courses have been offered since 1971-72. In 1973-74, approximately 400 students enrolled in 14 courses. During this three-year initiation period, emphasis has been placed on curriculum planning, establishment of core courses concerned with the primary objective, and the synthesis of new intellectual materials needed for these purposes. In the words of a VTS faculty member from chemistry, the program has from the beginning "sought to make a compound, not merely a mixture of disparate disciplinary materials." Experience in teaching four "core courses," in preparing syllabi, and in evaluation appears to confirm the viability of the program's primary goal. Three courses meeting the first of the secondary objectives have also been developed and appear highly successful and attractive to students. Because the other secondary objectives must await further articulation and development, no curriculum for them has yet been fully designed. However, a few students have pursued more advanced study in VTS through individually designed majors.

During spring and summer 1974, an ad hoc review committee, appointed by the Dean of Undergraduate Studies, examined the objectives, progress, potentials, and staffing of the VTS Program and made recommendations concerning the future of VTS to the responsible administrative officers of Stanford University. The general recommendations of the committee reaffirm the validity of the objectives of the program and its importance to Stanford, point out Stanford's special competence for this difficult but important task, and urge increased staffing to provide for more complete implementation of the program and for improved disciplinary balance among the faculty. The detailed recommendations of this report suggest specific actions which will aid the program in many significant ways. We mention particularly a novel and seemingly workable mode for the solution of the most vexing problem of all interdisciplinary programs — the faculty rewards structure in the universities. The recommendations of this ad hoc committee have been approved in principle by

the university administration providing that sufficient funding can be found from external sources. These costs are estimated at $100,000 to $200,000 annually (depending on the degree of further development) for the next five years.

To teach a new subject, or a new, integrated combination of old ones, requires new materials. Existing textbooks and other written materials do not adequately treat the interrelations among subjects that are the reasons for VTS's existence. Therefore, such materials must be created anew, and considerable research must be done, not only to acquire new knowledge but in order to provide a solid foundation for the teaching program. Discussions have been initiated during 1974 concerning research efforts; funding for research will also be sought from appropriate sources.

Attached are a few typical questions asked about the VTS Program with brief answers and also a list of manuscripts, completed and in progress, which have been generated within VTS during the past three years. Administrators or faculty in the program will be happy to elaborate further or discuss other points. Individuals particularly concerned are:

Administrative Officers

James L. Gibbs, Dean of Undergraduate Studies
David M. Mason, Associate Dean of Undergraduate Studies

VTS Administrative Committee

Prof. Edwin M. Good (Religious Studies), *Chairman*
Prof. Stephen J. Kline (Engineering)
Prof. Robert E. McGinn (VTS and Humanities Special Programs)
Prof. Nathan Rosenberg (Economics)

Questions about the Stanford Program in Values, Technology, and Society

1. Why is a program like VTS needed?

A world increasingly dependent on technology and consequently increasingly interactive needs educated citizens and civic leaders who understand not only the basic details of any particular endeavor but also the relations of that endeavor to human needs and social institutions. An essential ingredient of every society, whether it be simple or complex, agricultural or industrial, "primitive" or "advanced," is its technological base. Since technology is connected with most activities and institutions in society, an understanding of these interconnections will go a long way towards educating such citizens.

Earlier models of general education tended to exclude the bodies of knowledge connected with the great pragmatic professions (*e.g.*, medicine, engineering, law, and agronomy). As a result they tended to neglect the

links connecting the scientific understanding of physical and biological nature with problems in the real world as well as the methods by which societies dealt with such problems. Thus, *e.g.*, the student said to be generally educated had not grappled with the human, social, or scientific bases or consequences of technological change, a primary determinant of the character of life in modern Western society during the last two centuries.

Even if he or she could, the general student clearly does not need to acquire expertise across the range of scientific and professional fields studied in the university. VTS courses focus not on the details of a particular academic discipline (*e.g.*, sociology, philosophy, or biology) but on the outer relationships of a discipline with important areas of human concern. In VTS what the student learns of specific disciplines is motivated in terms of their general significance rather than as the first stage on the road to professional expertise. An example of this difference in focus in relation to VTS objectives may be seen by contrasting the two books by Professor W. C. Reynolds on energy. The older book *(Thermodynamics)* is a textbook for engineering students and as such is too difficult, detailed, and extensive for the general, nontechnical student. The newer book *(Energy: From Nature to Man)* is not intended for the potential specialist in the field, but in terms of both motivation and content is aimed at the would-be informed citizen-voter concerned with the use of energy in fulfilling human needs and the ecological consequences of various forms of energy or of the methods of supplying it.

2. *What can a program like VTS do that cannot be done in a conventional academic department?*

By definition, conventional academic departments deal with only a certain sector of human knowledge. However, outside the university, people face problems that resist tidy categorization and frequently require for their understanding and solution the perspectives and bodies of knowledge of many disciplines. Examples of such problems are the effects of industrial technology on the environment, the formulation of energy policies, the design and planning of mass-transit systems, the psychological, social, and aesthetic values embodied in television programming, and the introduction of new techniques in biomedical technology. No single discipline can even adequately address such problems, let alone "solve" them, but the way in which they are approached — more or less narrowly or comprehensively — will surely have a critical bearing on the future of American, if not of world society.

By bringing into active cooperation faculty members from a variety of disciplines, a program like VTS can begin to analyze such problems more adequately and to develop improved conceptual foundations facilitating

their more comprehensive consideration, a task as notable for its neglect within the university as it is for its importance without.

Consider a relatively simple instance. A symphony orchestra is a group of musicians, highly skilled and trained, whose prime function is to provide esthetic pleasure. But an orchestra is also a social institution whose members have different and complementary functions and relations to one another, which appeals to a public, is run by a board of directors, uses the negotiating energies of a labor union. It plays in a room designed to enhance and not impede the sound it makes, and it plays on instruments reflecting very sophisticated technology. A musician studying an orchestra is almost exclusively concerned with the esthetic quality of its performances. A sociologist won't really care (professionally) how well it plays but will examine its social structure, how it acquires and rewards members and how they act in it. An economist will look at the ways the orchestra generates money to support itself. An architect or structural engineer will be interested in whether the hall fulfills its acoustic function. A materials scientist may study the technology of the instruments to see how they can be improved.

But VTS is interested in all of these taken together as a total phenomenon, each of which contributes something necessary to the principal function of the orchestra. We believe that none in isolation from the rest is either the whole truth or the main truth, that we begin to understand the orchestra-complex by thinking of all of these aspects as interrelated. Most of the subjects VTS considers, admittedly, are much more complex than this, but the idea that the entity must be studied holistically continues to apply and yields significant gains.

3. Why is VTS different from programs at other schools?

Programs comparable to VTS in American universities are few in number. Even among existing interdisciplinary programs, Stanford's VTS Program has several unusual or unique features. These include the following:

a. The explicit use of materials focusing on the interactions of technology with human needs, social systems, and environments as a vehicle for general education. (See answers to questions 1 and 2 for a little further detail.)

b. The emphasis on human values: from the outset, VTS has striven to accord equal status to the consideration of the human value aspects of the problems falling within the orbit of its concern. This interest is a particularly fitting one for VTS to pursue, since many of the most pressing value issues currently under scrutiny or looming on the horizon of discussion arise out of technological innovations and their proposed introduction in various socio-cultural milieus.

c. A related interest in bringing the perspectives of the humanities (philosophy, religious studies, history, and literature) to bear on the consideration of the status and problems of contemporary technological society. In so doing, it is hoped that a reciprocal fertilization of humanistic studies will take place by affording humanists opportunities to come to grips with the general phenomenon of technology, one which has significantly affected their individual disciplinary terrains.

d. An explicit and significant emphasis on the creation of new educational materials usable in VTS courses. Many programs appear to provide for this type of work, but closer study reveals that they often merely arrange materials derived from diverse disciplines in uneasy combinations. VTS tries to begin from the interrelations of disciplines, so that from the outset perspectives on the problems are broadly rather than narrowly based.

e. A strong evaluation program designed to obtain both "in-course" and "post-course" information on classes has been incorporated from the beginning. This evaluation effort provides not only increased depth of information on particular courses, but also continuing assessment of the congruence between objectives and performance in VTS, taken as a programmatic whole.

f. The study of technology as a branch of knowledge with its own methodologies and information, and not merely as "applied science." This codification of the "philosophy and theory" of technology is not only of basic importance to VTS but may also contribute to other disciplines such as economics, history, and cultural anthropology.

THE UNIVERSITY OF KENTUCKY AMERICAN ETHIC PROGRAM[2]

If liberal arts instruction in private liberal arts colleges is in a state of crisis, as some say, then in traditional, public multipurpose universities, it must seem past all hope. Yet much of the future of American higher education will be determined by the developments in these institutions: publicly supported, admitting almost everyone who wants higher education, and enrolling massive numbers to fill every spot with the greatest efficiency. Nevertheless, the things that need to be learned in the general educational programs, despite the current interest in vocationalism and professionalism, haven't really changed that much. In these institutions, with their televised lectures, their 500-student classes, and their research-oriented faculties, the basic values and attitudes which have long been at the heart of liberal arts education are still of the utmost importance. These institutions also have a growing obligation to the people of all ages and persuasions who will

simply be citizens participating in a democracy — people who must make intelligent choices or personal decisions that relate to the broader community, but who may not be, or who may not aspire to be, elected officials, corporate presidents, or other opinion leaders. What do we do in institutions where the vast majority are enrolled for vocational reasons, rejecting as "frills" much of the liberal arts?

Program Rationale

The most traditional goals of liberal arts education — those of giving students an understanding of the world around them in its historical, social, and economic context, and of giving them the ability to analyze institutions and ideas critically — are currently suffering on a variety of fronts. They are suffering both from the seemingly irreversible dehumanization by a technological society and from social and economic forces which challenge the basic philosophical underpinnings of liberal arts education. Modern technology and the resulting sense of personal powerlessness and inadequacy have re-emphasized the individual's need for a sense of personal identity which is not presently being provided by much of higher education. In addition, the drive toward vocational education, current economic conditions that lead students to reject general courses in favor of marketable, technical programs, and the injection of the so-called "new learners" into the system have resulted in what many call a crisis for the liberal arts.

The American Ethic program at the University of Kentucky is an experiment designed to deal with these problems in liberal arts instruction through the application of experiential education. The fact that it is taking place in a large, multipurpose university adds another dimension to the challenge. This does not mean, however, that it is not applicable to liberal arts instruction in smaller colleges, and indeed it may be that in these more cohesive colleges the experiment could have broader implications and greater potential as part of an institutional mission.

In essense the program is an experiment with experiential education (that is, planned, out-of-the-classroom experiences in which a student tackles some personally determined learning objectives with the assistance of a faculty member) as a means of revitalizing instruction in the liberal arts. We recognize that this is not a panacea and not the only means of liberal arts renewal currently under experimentation. But we think experiential activities can add a vital dimension not present in most programs. In this program we emphasize the reflective dimension of experiential education and argue that experiential education and the liberal arts can reinforce one another.

The program focuses on "values" and "ethics" as factors the individual must consider as a participant in public life or as a member or leader of institutions with a public responsibility. These issues, partially made visible

in the last few years by Watergate but with deeper roots in international politics, war, and world-wide economic development, involve matters of moral choice, ethical decision-making, and the potential of citizenship. Making choices among alternatives, all of which seems to be unattractive, seems to be the constant dilemma of modern man, says Sidney Hook in a recent publication *(Education and the Taming of Power)*, and education in the humanities should help the individual deal with this dilemma. Hook says,

"As I understand the philosophical bequest of the humanities of the modern world, it reinforces our awareness of the indispensability of human choice as constituting the glory and tragedy of man. Indeed, the operating effectiveness of human choice is what we mean by freedom. In the end, power can be tamed, if at all, by the human spirit which alone is the carrier of cosmic value, and by the use of intelligence in the service of human freedom."[3]

Hook argues further that the individual with an educated intelligence has the responsibility to analyze barrages of information attempting to influence him by "sophisms, propaganda, and brass bands."

"And it is precisely here that the educational agencies of a democracy have an enormous responsibility. They must teach not merely the facts, but how to test them, how to relate them to problems, and how they bear upon relevant alternatives. They must also stir imagination and sensibility in envisaging the effects of proposed modes of conduct on a human situation."[4]

These issues of moral choice, the application of intelligence to problems, and the ethical virtues that Hook, among others, ascribes to the humanities, are precisely those seen to be lacking both by the general public and educators themselves in college programs. In other words, many think the responsibilities of enlightened citizenship and service to communities are not being understood or taught. It is possible that this is because of inadequate pedagogy used to convey these ideas. The American Ethic program is testing the premise that these intelligent choices cannot be learned in a vacuum, for no decisions are ever made in one. The difference between the "is" and the "ought" in the making of decisions is determined within dynamic situations which influence the individual in the most personal ways. The academic hope, of course, has been that this context would be provided by an understanding gained through the arts and sciences, via the instructional technique of absorbing and mastering the written and spoken word. Unfortunately, we have no way of knowing that this abstract context will hold up when challenged, or that it will be remembered, or that the intellectual value orientation will not be thrown out at the first confrontation with a hostile environment.

We hope that an integrated context of reflection and experience might provide not only a means of remembering abstractions but also a way of reinforcing them during and even after the time in which they are being tested. The values Hook advocates, for example, fall largely in the area of appreciation and sensitivity, and we have no way of knowing that they can be adequately tested in the mind of an undergraduate learner as he or she hears lectures on Plato or political power structures. It might be more appropriate to test these attitudes outside the classroom in a supervised experiential activity, where the learner is first forced into a personal confrontation between his or her values and external factors (an intellectual and internal confrontation), assesses the results, and returns to the abstractions either for new insights, for reinforcement, or modification of the abstraction — not to change its essence, but to see how to work within its general limitations while making hard choices.

Liberal arts educators have consistently held that their students, by understanding the condition of man in his environment through the study of history, literature, philosophy, or other subjects, would enhance the capacity of that individual to participate in society. But despite the intensity of these goals in the rhetoric of higher education, we suspect that most educators have wondered whether their students, who may have little concern for the disciplinary methodology which often clouds over the presentation of this general "understanding," or who may have little esthetic appreciation for or sense of identity with past personalities, are memorizing materials by rote to pass examinations and never really "reflecting" on the broad implications, or achieving a deeper understanding.

The possibilities of this broad understanding taking place in a setting other than the standard classroom became obvious to one of the authors while administering a state government internship program several years ago. For several years previous to that experience he had tried to interest students of American history in southern politics by assigning T. Harry Williams' biography of Huey Long. Students in upper level history courses reacted negatively to the book. It was too long (approximately nine hundred pages) and its detail was oppressive to students with limited empathy for the relationship between politics and administrative manipulation. Quite logically they asked why they needed to read nine hundred pages to get the "information" they thought the book contained; the "understanding" the book could have provided was simply unavailable to all but a few.

A seminar for full-time undergraduate interns in state government provided an interesting reverse. All of the interns were in situations where they did real work with administrators of government agencies reporting directly to the governor. The interns were aware, on a personal and daily

basis, of the implicatons of gubernatorial power through their internship assignments and not through the seminar or the written material. When the seminar reached the point of reflecting on the role of contemporary governors, *Huey Long* was again assigned. The book took on new relevance and meaning for the students. They could identify immediately with both Huey Long and his administrative environment. They said, "My agency would have reacted differently in that situation," or "The governor did that to our department," indicating that each student had a peg on which to hang the information in his or her mind. Moreover, the wealth of detail and analysis in the book, formerly a hinderance, was now an advantage; a thorough analysis of the milieu of one governor and one state's political/administrative structure in the context of practical experience brought understanding. In other words, the interns each had a personal experience with historical understanding; they placed themselves and their agencies in the context of a historical experience. And this was not a matter of relating "theory to reality," as is often said to be the advantage of internships. Instead they realized that this book, this "history," was in fact part of an ongoing reality. Historical consciousness dawned on them when Huey Long became as real as their current governor; the only difference was that they read about one and observed the other directly.

We recognize that our rationale sounds much like recent discussions of the role of social sciences as instruments of social or economic policy, sometimes with disastrous implications. But for purposes of this discussion we are putting aside the debate over whether the humanities indeed should become involved in society, feeling there is enough merit on the side of universities and colleges playing an active social and political role to justify some experimentation with the idea. In other words, in this program we take as an aim of education the promotion of the understanding of the relationships between ideas and problems and an understanding of the impact of ideas on man.

The Development of the Program

Based on these concerns about liberal education and our interests in experimenting with experiential education as a revitalizing force within the curriculum, the experimental American Ethic program was devised with assistance from the Lilly Endowment. Our broad concerns have, over the last year, evolved into more specific programatic objectives. We concluded that we wanted students to examine the "ethics and values of public policy decision-making," both as a potential benefit for their professional or working lives, and as an important consideration in their roles as citizens. Students in the program participate in internships in the public sector in combination with a strong reflective component, an interdisciplinary seminar. By placing students in intern-

ships with direct responsibility, we hoped that they would be more capable of understanding and integrating concepts than would be students who were taught relatively abstract concepts in a vacuum of both youth and inexperience. While the internships are to provide specific situations in which the ethical bases of decision-making can be studied, the seminar provides the theoretical framework for discussing the nature of how one "ought" to make decisions, and offers social, historical, and philosophical context.

The planning process itself has been an important stage in the evolution of the experiment. What is meant by ethics, values, and morality? And especially important in a public university, how can one structure a seminar which promises to deal with these basic issues on both a personal and societal level without prescriptive moral tone? These concerns were approached in two ways. In-depth research was initiated about a year ago by reviewing the literature, bringing in consultants, attending workshops and special courses, and visiting universities with related programs. To involve the broader university community we engaged faculty members, administrators, and students in a dialogue about the nature of the liberal arts, the role of experiential education and the possible content of a program designed to relate the two. In brainstorming sessions with individuals ranging from the Chairman of the Department of Classics, to former student interns, to the Director of the Harvard Center for Moral Education, the program began to take shape and allies were enlisted.

The review of possible pedagogical approaches and rationales covered a broad range of material: William Perry, on the intellectual and ethical development of college students; Simon, Raths, et al., on values clarification; Jean Piaget on cognitive development; John Stewart on values/moral development; Erik Erikson on the life cycle; Jane Loevinger on ego development; Milton Rokeach on human values; Charles Hampden-Turner on psycho-social development; Lawrence Kohlberg on the development of moral judgment, and numerous others. A month at Harvard's Center for Moral Education with several of the developmental psychologists was the final catalyst in the decision to stress a developmental approach to the program. Because the program is designed for students from all disciplines and academic backgrounds, and deals with individual value systems and ethical codes, we wanted an approach that allowed for as much individual interpretation as possible and as little prescriptive moralism.

From faculty members interviewed in our initial discussions three from varying backgrounds but with compatible views were selected to design the first seminar. (The program will run for three semesters, each with a new group of students and taught by a different team of

faculty.) Representing the departments of political science, philosophy, and social and philosophical studies in education, the three met an afternoon each week over two months to reach a consensus about the purposes and objectives of the seminar and to outline the content. In preparing a syllabus that offered if not a synthesis of the instructors' views, at least a working composite, the three chose to deal with such topics as the nature of citizenship, interpretations of the concept of justice, the notion of community, participation in a democracy, and alienation in the modern world. The course draws on readings by Rawls, Goodman, Berger, Pranger, Keniston, and Kohlberg among others. In accordance with the development approach and a desire to evaluate by criterion standards rather than normative it was decided that there would be no competitive tests. The students are graded on the basis of an individual paper and a thorough journal in which they must respond to each reading, the class, and their internship activities.

But in addition to rather heavy academic content, the course is structured to promote cohesiveness and community among its members. The instructors opted for less frequent, but longer and more intensive sessions than in the usual course format. The initial meeting was arranged as a full day of introductions, role-playing, discussions of readings, and presentations by the faculty. Additionally, an experimental component of this first semester is a one-week trip to Washington, D.C., where students are encouraged to view the same issues in a national context. Here they attend group seminars, pursue their individual research, and in some cases, visit organizations similar to those in which they are interning, but on a national scale.

For this first semester, the fifteen students were drawn from across the undergraduate population and selected on the basis of interest, faculty recommendations, and interviews. They represent an unusual mix of academic disciplines, majoring in agricultural economics, education, prelaw, accounting, philosophy, math, social work, journalism, hospital administration, urban planning, sociology, political science, and English. In addition to grappling with the issues posed by the seminar, they are, of course, expected to further their knowledge in their own fields through the internships, and are each required to outline these objectives specifically. Most work full-time in their assignments and are earning a full semester's academic credit by combining the seminar (3 credits) with courses arranged contractually with faculty members in disciplines pertinent to their individual assignments and objectives. Their internships are in local and state government and with advocacy-type organizations, such as: the state commission on women, a legal services group, the state legislature, the city-county planning commission, the local government's public information unit, a farmers' cooperative, the

county health department, the human rights commission, and a high school.

As the program planning has developed, we have become increasingly curious about understanding what happens to participants. Will, as we believe, the combination of an actual experience in public service and a seminar that deals with questions of ethics and values have a greater impact than either could possibly have alone? Will the students be more capable of interrelating action and ethics in their lives if the latter is not taught abstractly?

With the assistance of a small research grant from the Cooperative Assessment of Experiential Learning (an Educational Testing Service-based consortium of schools involved in some aspects of experiential learning and interested in refining its assessment), we are now involved in developing a model for assessing the development of students in this program. This is being designed, for the most part, by a political science instructor who had been involved in the project since its early stages and who was intrigued by the relevance of developmental theory to his own discipline. In attempting to create a means of understanding student development in this particular program, he has drawn from several related schemes to achieve an integrated picture. The resulting "dimensions of psycho-political development" will be used to guide our assessment of the changes students undergo in this program. These dimensions deal with such notions as concept of self, political consciousness, personal identity, and moral complexity.

The methodology of this research effort is largely phenomenological, for we felt the students themselves could tell us much about the evolving nature of their own concepts. A series of questions has been designed in accordance with the dimensions of psycho-political development and will be administered to each student before and after participation in the program by a trained, independent interviewer. We anticipate that the responses will contain structural significance relevant to the dimensions and, therefore, will be useful in interpreting development.

While this research plan is still in the formative stages and since the program will run for three semesters, it is obviously impossible at this point to evaluate the total project. We do know that it has been successful in involving a significant number of the university community in its planning and implementation, but that we have not been as specific as we would like in defining objectives for the overall program and for its individual participants. But most importantly, the project has not only stimulated discussion in many sectors of the university about the role of values and the liberal arts, and experiential education as a tool for their instruction, but has provided a working model to demonstrate this interrelationship. Our final objective, then,

is to affect not only those individuals who directly participate in this program, but to use this program as a means of demonstrating that the traditional values of the liberal arts can be taught in a nontraditional manner — through experiential education.

LIBERAL EDUCATION AND SOCIETAL NEED AT UNIVERSITY OF WISCONSIN — GREEN BAY[8]

The university of Wisconsin-Green Bay (UWGB) is an innovative institution which seeks to blend traditional liberal arts concerns, such as for human values and intellectual breadth, with an emphasis on social responsibility and career preparation in a manner that will highlight the importance of liberal education for contemporary students.

The basic premise of the university is that it is "founded on the importance of commitment and involvement of students — commitment to and involvement in the world about which they seek to learn. Knowledge leads to wisdom when it is related to purpose. Strong purpose and dedication along with knowledge and ability are the ingredients from which flows a satisfying and meaningful life." The university seeks thus to become a part of the world rather than apart from it. Students and faculty alike are asked to undertake their activities in the context of responsible social action for human betterment.

Since motivation is the key to commitment and responsible involvement, the student's motivation to learn is of particular importance. UWGB seeks to engender such motivation by providing an innovative educational alternative which helps students see the relationship between their goals and their studies and which takes a unique approach to preparing them to address the world of the future.

To achieve this end, the institution uses a distinctive model, which has three key elements: (1) an integrated, thematic approach to knowledge, (2) the application of knowledge to pressing societal problems, and (3) an interdisciplinary intellectual thrust. The theme helps students relate the varied parts of their educational program to a comprehensible purpose, so that they may better understand why they do what they do. And, in a broader context, the thematic approach assists students to develop a holistic view of the world, to see the relationships among rather than the boundaries between the parts of the whole. In this way, students may more easily achieve that sense of meaning and purpose which gives direction to their lives. The specific theme chosen for UWGB was ecology — the relationships among people and their various environments. It was a remarkably prescient choice in the late sixties, but the significance of the approach transcends the theme chosen.

The second major element of UWGB's academic plan is that knowledge should be applied to the solution of pressing societal problems. In addition to the complete curricular reorganization effected for this purpose (see below), the university seeks to achieve this goal in a variety of ways. Faculty are encouraged to pursue applied research projects which can include students and which can be integrated with their classes as a part of the normal instructional process. Students also are encouraged to undertake applied research; recent projects on problems as varied as anerobic digestors and community noise have been funded by NSF, Esso, and the Ford Foundation's Venture Fund. Field work, internships, and practice are encouraged, with the January Interim of the 4-1-4 calendar an especially appropriate time for such activities. Faculty are encouraged to integrate into their classes the services of knowledgeable persons from outside the university, who are given the honorific appointment of "community lecturer" and every graduate student is expected to have, where possible, a committee member from outside the university.

This emphasis enhances student motivation, gives the student assistance in translating knowledge into tangible results, and not infrequently has led directly to a challenging job for the student upon graduation. But problems seem seldom to observe disciplinary boundaries, which results in the third element of the model, an interdisciplinary intellectual thrust and organizational structure for the university.

Curricular Organization

The core program at the university is the Liberal Education Seminar, a required 18-credit package which runs through the student's career. The program has three components, each of which makes a unique contribution to the student's liberal education. In the freshman program the student is introduced to the relationships possible between human values and human actions. By taking four different interdisciplinary modules, such as Resource Utilization and the American Character or Technology and Human Values, taught by faculty from across the university, the student is introduced to the ecological implications of our values and the extent to which our values influence our actions.

Intermediate LES, taken by students in either their sophomore or junior year, emphasizes cultural contrast and off-campus study. Students are commonly asked to understand the effect of differing cultural values by comparing the approach different cultures have taken to the solution of a common problem. Students might, for example, examine the impact our cultural values have had on the shaping of our legal system, then compare our experience with that in a contrasting culture. To the

extent possible, students are encouraged to undertake field research in another culture; the university offers instruction in a variety of contrasting cultures — both in this country and abroad — during the January Interim.

The senior component of the Liberal Education Seminar is designed to be a capstone experience for the student's baccalaureate education. It draws students from across the university into an intense small group confrontation of a major ecological issue which transcends the purview of any single concentration. The program has two goals: students should, on the one hand, strive to develop an intellectual framework through which to integrate the material they have learned and insights they have gained. Secondly, students should confront the value-related questions pertaining to individual commitment and social responsibility which will become of increased significance as they bring their period of formal study to a close.

At UWGB, students do not major in a traditional discipline; instead, they are asked to apply themselves to the solution of some pressing problem facing society. To do so effectively, they will have to bring to bear on the problem insights from any field of knowledge which may prove useful and then seek to integrate those varied insights and methodologies into a meaningful whole. For this reason the chief organizational unit at UWGB is not the disciplinary department but the concentration, an interdisciplinary problem-focus which serves as the major for students and the department for faculty. There are presently eleven concentrations such as human adaptability, modernization processes, population dynamics and urban analysis. Though based in some broad field of knowledge, such as humanities, the concentrations encompass a wide range of faculty expertise and subject matter. Urban analysis emphasizes the study of social relationships, yet in addition to its social science faculty it has included persons with expertise in philosophy, literature, history, American studies, physiological and clinical psychology, architecture, planning, public health, and mathematics.

Both the required programs at the university, the Liberal Education Seminar and the concentration, thus emphasize intellectual breadth, an understanding of human values and the role of values in human existence, an interdisciplinary approach to environmental problem solving, and the application of knowledge to pressing societal problems. Since it is the one program the student necessarily follows from the beginning to the end of his baccalaureate career, the Liberal Education Seminar also plays the role of an intellectual lifeline, to which the student can relate the various components of his studies both within the major and without. The concentration can perform a similar function,

though over a somewhat narrower intellectual range and more limited time span, since students may not have to identify with some concentrations before the end of their sophomore year.

Though the dominant intellectual thrust of the university is clearly interdisciplinary, the disciplines have an important role to play. In addition to the interdisciplinary programs just mentioned, UWGB offers instruction in the normal range of disciplines. Disciplinary courses comprise about half of the total university offerings in any semester and often form the foundation from which students move into interdisciplinary study. While all students are required to pursue a major by taking at least 30 credits of junior-senior level work appropriate to one of the concentrations (or by constructing their own personalized concentration), they have the option of combining that concentration with a co-major in a specific discipline; thus a student might, by taking a minimum of 36 junior-senior credits, relate anthropology to human adaptability.

The opportunity to relate liberal education to career education is another curricular innovation at UWGB. Students may do so by pursuing a collateral, representing a specific career or profession, in fields ranging from environmental administration to social services. Collaterals must be taken in conjunction with a concentration and are not available as a student major because the university feels that they are best understood in the context of a broader set of concerns. The combination of a collateral and a concentration, of social services and urban analysis, can provide an especially powerful education in which the student is aided in his professional development by seeing the extent to which environmental factors can influence the profession and his practice of it.

Conclusion

Ultimately, any succinct effort to define or even characterize liberal education is likely to fall short; the concept is too complex, too subtle. Two such attempts, though, are revealing. Theodore Greene proposed that liberal education should: increase the ability to be literate and articulate; increase one's knowledge about oneself, one's physical world and social environment; increase one's sense of values; and widen one's horizon through the relationship of the part to the whole. Jacob Neusner suggests that liberal education requires "exploration of the context in which the self takes shape. Liberal learning brings one out of one's self and leads to an encounter with other people, their yearnings and perplexities."

UWGB's goals and approach fit either dictum. The university emphasizes relating the parts to the whole and helping students come

to grips with important questions of value. It emphasizes increased knowledge about oneself and one's environments, and thereby, the context within which the human experience takes shape. Every all-university requirement emphasizes stretching the self by encountering diverse aspects of the human condition. And, insofar as possible, the university seeks to teach not a body of facts which will soon be outdated but a process and spirit of mind whereby one can continue to learn, evaluate new experiences, and address effectively the as-yet unknown problems of the future.

UWGB's academic plan states: "Of fundamental importance, a university can highlight the importance of living with a purpose, a purpose based on well-considered and well-conceived first principles." Through its emphasis on the application of knowledge the university seeks to help students see the relevance of their studies. Through its academic plan it seeks to aid students in integrating their activities so that they may find meaning in them.

Because of its curricular and pedagogic innovations, students at UWGB have dealt directly with "real world" issues in the classroom and have experience with applying knowledge to societal problems. How better to improve society than by producing liberally educated citizens with the capacity to apply knowledge to human problems and the understanding to see the implications of their values and their actions?

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1. Coordinator: John P. Nichols, S.T.L., Ph.D.
2. Prepared by Barbara K. Hofer and Robert F. Sexton.
3. Sidney Hook, *Education and the Taming of Power* (LaSalle, Ill.: Open Court, 1973), 200.
4. Ibid.
5. By Forrest H. Armstrong, Associate Dean for Academic Affairs.

VIII. CONCLUSION

In conclusion the author would like to reaffirm the main theme of this treatise and yet close on an optimistic note. To any objective observer of the contemporary scene it must be evident that even if unexploded nuclear devices were not hovering over the human community mankind would today nevertheless be at a fateful crossroad. Having viewed the evolution of the culture of the West for some decades, and in more recent years of the other regions of the human community, and having seen disorder succeed order, incivility replace reverence, and confusion of private and public purpose supersede substantial agreement in our society on desirable ends of communal living, I believe that it is still possible to reverse these trends toward dissolution and the final eclipse of the human enterprise.

Even in the face of the rise and fall of all other preceding cultures as depicted so graphically by historians from Gibbon to Toynbee, I believe there is in the nature of things no irresistible destructive force to which mankind must in inevitable cycles fall victim. Despite ubiquitous social dislocations and personal confusion and dissatisfactions, I believe the leaders of the Enlightenment were right in their conviction that knowledge and the reasonable and humane use thereof is the only instrument available to mankind to achieve the order and quietude essential to a satisfying life.

Further, it seems to me that the competition our nation now faces in the rising power and influence of another type of society, as exhibited in China, can be met through the embodiment in our educational system of the ideas and the ideals of those who in the eighteenth century put their faith in the dissemination of knowledge as the means of our national prosperity and individual contentment. Those who have visited China report their impression that a sense of national destiny prevails, a commitment to a common set of objectives, a willingness to work collectively for the common good, an orderliness in personal and public life, and unfailing

respect and courtesy among the people. The improvement in the lives of the citizens over a relatively short historic period is everywhere apparent. In fact, one of our most distinguished journalists after visiting Peking observed that the motives animating the life of the country seemed remarkably similar to our own in Horatio Alger days. The one significant difference between their system and ours, however, emanates from our conception of the human being's ability to make his *own decisions* based on all the available knowledge of the facts.

My own commitment to the concept of man as a thinking being endowed with free will to make his own choices remains unshaken by the aimlessness, disorder, and intergroup conflict in our society. My lifelong dedication to the idea that a proper education is the only means available to advance the human cause remains unchanged. Our present predicament, it seems to me, stems not from a baseless faith in these views concerning the nature of mankind or of his education, but rather from our failure to employ them in trying to cope with the admittedly complicated human condition.

Two main weaknesses in our educational philosophy and practice must, however, be corrected, and time is of the essence. Our institutions of higher education must reassume their primary function of disseminating knowledge among the people. To say this is in no way to depreciate their other services of research, advanced specialized teaching, and providing advisory services to government, industry, and individuals. The need for new knowledge will be endless. The obvious fact is, however, that a large majority of those who have had the advantages of higher education are as ignorant of many aspects of the modern situation as their less tutored contemporaries. Not all citizens can possess knowledge about all aspects of living in this enormously complicated world. The majority can, however, be better informed and intellectually more skilled than they are today, even after having spent four or more years studying in institutions dedicated to the propagation of knowledge in the liberal arts and sciences. If these goals are to be achieved, however, as I have attempted to show, the apparatus of learning must be refitted to provide a broader, more general education for

all regardless of their personal interests or vocational goals. The courses of study must be made to bear more directly on the welter of problems that now face modern man.

The other shift in policy relates to the responsibility to treat the values on the basis of which we organize our personal and civic lives. No additional amount of knowledge, however widely distributed among the people, will help lift us out of the present morass of conflicting goals and ambitions. We must again clearly define what we want to be and do as a people. My own conviction is that this will not be such a Herculean task as may appear on the surface. In the Judeo-Christian and Greco-Roman philosophy of life we have principles of living that combined with the rational use of modern knowledge can reset our vision on realistic and attainable goals. This will not occur, however, unless the profession of education accepts the challenge, revises some of its own goals and ambitions, and restores order in the house of learning. If it does not do this it will spread the disease in our society it was established to cure. The conditions of the day call for radical reconstruction in the enterprise of learning. The members of the profession have a moral responsibility expeditiously to undertake the needed reforms. In this taxing effort they will need the unreserved moral, financial, and spiritual support of all our people.

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